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By-Ellis, Desmond P.; Wiggins, James W.

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This report is concerned with the problem of the socialization of academic behavior and with the over-representation of Negro students among low achievers. Studied were such possible causative factors as (1) parental educational level and other social structural variables; (2) differential reinforcements of Negro and white students; and (3) differential exposure to high achievement level parental, sibling, and peer models. Data were gathered by student questionnaires and school records. Subjects were Negro and white eighth grade students in a recently desegregated Southern junior high school. Findings show that the educational and occupational level of fathers, their administration of rewards, and also the frequency with which reward is coupled with school achievement are particularly relevant factors. Sex of student and race of teacher in relation to race of student also seem to influence the probability of achievement. (NH)

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September, 1968

U. S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education
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Desmond P. Ellis

James W. Wiggins

Department of Sociology

University of North Carolina

Chapel Hill, North Carolina 27514

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Health, Education and Welfare

Office of Education

Bureau of Research

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Research assistants involved in the data gathering and processing stage of this report were:

Mr. C. Cassell

Miss S. Crowdus

Mr. K. A. Hardy

Mr. B. W. Matthews

# Summary

This report is concerned with the problem of the socialization of academic behaviour among minority group children. Compared with Caucasian students, Negro students tend to be over-represented in low achievement level groups. Why? Among existing answers to this question, three are singled out for research attention: (1) Because of the influence of such things as parents educational level, social rank of occupation of parents and so on (social structural variables); (2) Because of the rewards and punishments differentially administered to Caucasian and Negro students by parents, siblings, peers and teachers (reinforcement paradigm); (3) Because of the differential exposure of Caucasian and Negro students to high achievement level parental, sibling and peer models (imitation paradigm). Data pertinent to the determination of the status of these three paradigms were gathered by questionnaires administered to students and by the use of school records.

Our findings indicate that elements in each of the three paradigms are related to differential recruitment to high and low achievement groups. In this connection, fathers educational and occupational level, rewards administered by father, and frequency with which rewarding is paired with "doing well in school" are especially relevant. Observations of the classroom behaviour of low ability group members suggests that sex of student and race of teacher in relation to race of student do influence the probability of achievement behaviours.

## Chapter 1: Introduction

The report presented here is a descriptive account of the everyday classroom behaviour and social attitudes and expectations of a racially heterogeneous sample of junior high school students. More specifically, this report is a pilot project in which werattempt to observe, measure and describe the overt behaviour and social attitudes, expectations and preferences of a non-randomly selected group of students enrolled in a recently desegrated junior high school. The project is a pilot study in the sense that it provides a preliminary test of various measurement operations, competing explanations and so on, which are to be incorported into a subsequent study, similar in nature but of greater depth and scope.

In this pilot study we were not equally interested in all aspects of student behaviour and attitudes. We began the study with a primary interest in the relation between cooperative, aggressive and academic behaviour in a bi-racial setting. More specifically, believing that (1) aggressive behaviour and attitudes on the part of students and teachers --- are inconsistent with, and that cooperative behaviour (student-student and student-teacher) was consistent with, increasing the level of academic behaviour, and that (2) the presence of Negro students in a recently desegrated "white school", would increase the probability of inter-racial aggressive exchanges, we designed our experimental study in such a way as to increase the level of academic attainment by increasing the probability of "cooperative exchanges while simultaneously decreasing the probability of aggressive exchanges. For reasons beyond our control, these research intentions will not be turned into actual research operations until Fall, 1968.*

The major result of this forced change in plan was to lead us in the direction of focusing on a wider variety of variables which are held to be relevant to the socialization of achievement (academic) behaviour, and which could be tapped by the administration of a questionaire. Thus, one major revised aim of the study lay in discovering the degree to which family peer and teacher behaviour (as reported by the student) attitudes and expectations, as well as certain racial and demographic variables influence the probability of membership in either a high or a low ability group in school. In conjunction with this revised aim, we retained our original interest in comparing the classroom behaviour of members of high and low ability groups as well as describing the frequency of various types of classroom behaviours of low ability group members alone. It was felt that both types of information would be highly relevant to the experimental programme being conducted this Fall.

The largely descriptive and diagnostic nature of this report is based upon the premiss that the implementation of a successful "therapy" for schools with "grave disciplinary problems" or for increasing the attainment level of black minority group members of society must be preceded by detailed knowledge of the frequency, duration, intensity and direction of specific problematic behaviours as well as knowledge of the variables which control

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*Our proposed research operations required the use of a classroom, wired for sound, with one way mirrors, and so on. Having independently acquired an on-school-site, trailer (laboratory) classroom, and having received a promise of the installation of this trailer in March 1967, it was not actually installed until June, 1967 three weeks before end of term!

these behaviours. The first requirement led us to ask: What specific behaviours, social attitudes and expectations characterize students in this grade and this classroom? The second requirement led us to ask: Under what conditions is one likely to observe what in fact we did observe?

Answers to questions such as these represent the initial set of problems, the answers to which we have attempted to set out in this report. On its own terms, the report will, we feel, represent a small contribution to the ethnography of student classroom behaviour.[1]

In addition to its descriptive dimension, this study also attempts to specify the antecedents of differential recruitment to ability groups. In connection with this problem area, it is our view, supported by a plethora of research studies, that student behaviour is a function not only of contingencies operative in the school and classroom but also of contingencies generated by a social matrix wider than that of the school classroom or even the school itself. Thus, we examine not only student-student and teacher-student, but also the influence of father, mother, and student respectively, on the student.

---

[1] In connection with the relative paucity of such accounts, Bidwell, in a recent review noted that, "most studies of student social structure are almost entirely classical sociometric studies in which students were asked to nominate peers according to some evaluational, rather than behavioural criterion . . . Possibly, (such studies) tell little more than that students are valuing creatures. (p.984). Bidwell, C. E. The school as a formal organization, in March, J.G. (ed.) Handbook of Organizations. Chicago: Rand McNally, 1966.

The various, intra and extra school influences on student performance are analytically separated into three theoretical paradigms: (1) Social structural, (2) reinforcement and (3) imitation. While a social structural explanation of differential recruitment to high and low ability groups focuses on such factors as age, residence, occupational role of family, and so on, a reinforcement explanation focuses on the value of rewards and punishments and the frequency with which these rewards and punishments are made contingent on good or poor performance at school and an imitation explanation emphasizes the role of models (parent, peers, etc) on differential school performance. A major part of this study is devoted to testing the relative utility of these explanations.

It is to the research procedures adopted in the attempt to attain the aims set out here that we now turn.

## Chapter 2

### Methods

The "methods" referred to here are methods of observing and measuring social behaviour and social beliefs, opinions and attitudes. In a descriptive study such as this, at least two questions ought to be asked of any investigator --- but especially those whose data are to utilized as a basis for formulating therapeutic strategies: Did the investigator use a variety of data gathering devices, and how did these devices relate to each other? Secondly, did the data-gathering instrument (s) change the very event, behaviour or process which the investigator was trying to measure? In this context, an ideal descriptive study would be one in which the investigator uses a number of different techniques to observe/measure the same class of responses and where one or more of the measuring devices utilized are non-reactive, i. e. they do not arouse the self-consciousness of the subject and so change the behaviour they are designed simply to measure

The findings of this study are based upon the utilization of three data gathering techniques --- records, direct observation, questionnaire. These techniques are related to each other in the following way --- they do not share the same methodological weaknesses. Secondly, one of the techniques utilized-school records --- is a non-reactive measure of at least some of the social behaviours measured by the remaining two techniques.

Having presented a general rationale for the methodological approach adopted, the remainder of this chapter will be devoted to a more detailed explication of the processes involved in translating research intentions into actual research operations. We begin with the identification of the subjects whose behaviour and attitudes are the objects of study.

## Subjects and School Setting

The subjects of this study were 146 eighth grade students. These junior high school students were not randomly selected. However, to the extent that our sample does include over fifty percent of all eighth grade students we have probably diminished the degree to which self or experimentor selection operates to bias the results of the study. Of the 146 students selected, 110 were members of a high ability group of students, while the remaining 36 were members of a low ability group.

Secondly, it is important to note that the junior high school in which our subjects were students had only recently been desegrated. Until September 1967 there were two junior high schools in Chapel Hill, (pop. 13,000) N. C. One of these schools was attended solely by Negroes, the other solely by Caucasians. In 1962 --- as a result of a court decision --- one Negro student entered what had formerly been a non-Negro junior high school. Between 1962 and 1965 the number of Negro students enrolled at this school increased very slowly. A Freedom of Choice plan was put into effect in September 1965, and remained in effect for one school year. In July 1966 the school with the all-Negro enrollment was closed and the students transferred to the non-Negro school. As a result of this administrative decision by the local School Board, the percentage of Negroes enrolled in the remaining junior high school increased from a low but unspecified figure, to about 33% (N = 1173 students). Since September 1967 all students have been assigned to various schools in such a way as to ensure that between 25% to 32% of students enrolled in any given school will be Negro. During the year this study was conducted (1967-1968) almost 34% of the students enrolled in the junior high school were Negro (N= 1160 students).[1]

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[1] Approximately 20% of the population in Chapel Hill school district is non-white. Source: Merchant's Association Publication, Chamber of Commerce, 1968.

## Official Records

School records were used to gather a variety of data for a variety of reasons. First of all, the use of school records enabled us to collect data which would otherwise not have been observed, e.g. measured intelligence. Secondly, to the extent that the data so collected were based upon the adminintration of the same psychometric and other tests to all students, we were enabled to make comparisons across classroom groups. Thirdly, the use of such records enabled us to collect data which could serve as a reliability check on data collected by other methods, e.g. school records showing the number of detentions could be compared with the questionaire responses of subjects to a question concerning number of detentions. Finally, to the extent that school records provide longitudinal data, the through-time effects of planned changes can be measured and compared with base line data.

## Direct observation

The method of direct observation was used to gather data on the classroom behaviour of students. The types of classroom behaviour subjected to direct observation included both student-student and student-teacher interactions. It should be noted that while the observations were "direct" they were made in terms of pre-determined categories. These behavioural categories were progressively developed in the following manner. Having previously acquainted ourselves with the relevant literature (  ) the first three weeks of November, 1967 were devoted to obtaining teacher reactions to and definition of various specific behaviours. Individual teachers were presented with a Teacher Evaluation Sheet (Appendix 2) and asked to list specific student behaviours which they positively evaluated and those which they negatively evaluated. Teacher respondents would then be asked to assign the specific behaviours listed to one of the nine categories listed in Appendix 1. Finally, they would be asked to name and rank order specific children on each of the following dimensions --- cooperative, aggressive, and achievement behaviours. These data, together with data culled from a perusal of the relevant literature provided us with a set of preliminary orientating data.[2]

Actual observation of classroom patterns of interaction commenced during the last week in November and continued until the Christmas vacation break. Four observers, the two principal investigators and two research assistants, each spent approximately 4 hours per day in classroom settings. The observations continued for 16 days. Thus, each observer put in 64 hours of observational time. Observations were made individually jointly and severally, covering different grade levels, the various streams within grade levels, the same class at different times of the day, on different days of the week and with different teachers. In this way it was possible to ground our observations in their respective contexts and, should we decide to use summarizing measures for baselines, our procedures would help to mitigate the effects of errors stemming from contextual biases.

During this initial four week period our observations were guided by the general questions: What sorts of behaviours do students and teachers emit during attendance at classroom sessions? To who (whom) are these behaviours directed? Can we identify and count specific behaviours? Can we classify modes of interaction? Thus, although we were primarily interested in interracial interactions and in cooperative, aggressive and achievement behaviours, our preliminary observations were much wider in scope and served the important function of training all of us who were involved in the observational process.

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[2] Amidon, E. J., and Hough J. B. (eds) Interaction Analysis: Theory Research and Application, Massachusetts: Adison Wesley, 1967.

On the basis of the data gathered during this initial period, specific behaviours were assigned to one or other of the categories being developed. During February, our category rating instrument was pretested. Problems encountered during the observational process would be discussed at weekly meetings. At the end of February the pretest phase was completed and plan laid as to the procedures to be adopted during the final six week observational period.

The final observational period commenced on the 19th of March and ended on the 8th of May. This means that each of the four observers spent approximately 7 hours per week in making observations. As the observations were continued for eight weeks (approximately --- after deducting time for Easter vacations, school trips, etc.) we arrive at an overall figure of 49 hours of classroom observation for each observer.

Using the pretested version of the Behaviour Category Rating Instrument each observer concurrently recorded ongoing classroom behaviour on Forms 1 and 2, Appendix 3. By this time the possibly reactive effects of the presence of strangers had stabled out and upon each visit the observer was instructed to remain as unobtrusive as possible.[3]

The four research assistant observers were split into groups of two for the duration of the observational period. Differences in observational and recording procedures can best be discussed on terms of Between Observer

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[3] It should be noted that as this school was a site for teacher training, students were quite accustomed to the presence of observers.

Pair and Within Observer Pair variations. Between observer pair differences were of the following order: Observers B and C were assigned to class periods 1,3, and 4 on Mondays, Wednesdays, and Fridays, while observers S and K were assigned to the same class periods on Tuesdays, Wednesdays and Thursdays. Secondly, the subjects under observation were divided into two groups --- Group 1 (n = 10) and Group 2 (n = 9).[4] Observers B and C observed Group 1 members during all three class periods, while observers S and K observed Group 1 members during class period one on all three days and Group 2 members during periods 2 and 3 on Wednesdays and Fridays. Quite apart from the requisite nature of obtaining data amenable to analysis for the purpose of computing reliability co-efficients, the major rationale for adopting these particular between-observer-pair subject assignment, and for focussing a particular teacher and particular class periods, inhered in the fact that we were operating in an ongoing school setting with a very complicated method of assigning students to classes. The arrangements presented here were the only ones enabling us to hold the students constant while varying teachers and subject matter.

Within observer-pair variations were of the following order: Taking the B - C observer pair first, while B focused on student-teacher interactions, C observed student-student interactions. More specifically B would observe a particular student ($S_1$) interacting with four proximally situated students - the student in front of $S_1$, the student to the right of $S_1$, the student to the rear of $S_1$, and the student to the left of $S_1$. Each of the four dyads ( $S_1 - S_{front}$; $S_1 - S_{right}$; $S_1 - S_{rear}$; $S_1 - S_{left}$)

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[4] No known bias influenced this division, our major concern being to maintain as small a subject-observer ratio as possible in order to facilitate the observational process.

would be observed for fifteen seconds. Having observed $S_1$ for sixty seconds ( 4 x 15) B would then focus on 52, 53... $S_{10}$, and repeat the procedure with each subject. Meanwhile, observer C, would focus on his $S_1$, and during a fifteen second observational period would record the nature of the $S_1$-teacher interaction, then move to $S_2$ - teacher interaction for fifteen seconds and so on to $S_{10}$. This meant that the behaviour of students being observed by C was being recorded for fifteen seconds in every one hundred and fifty seconds. In the case of Observer B, the behaviour of each subject was being recorded for sixty seconds in every six hundred seconds.

Within the S - K observer pair, observer K focused on student-student and observer S on student-teacher interactions. While the observational procedures utilized by K were identical to those adopted by B, the procedures adopted by observer S were identical to those used by observer C in the B - C pair. It should also be noted that both pairs of observers were recording the same two properties of designated classes of social behaviours - frequency of emission. It is in terms of the relative frequency of emission of these classes of behaviours that the observational data are subsequently analyzed. The level of inter-observer agreement for observers B and K is 73%.

## Questionnaire

The final version of the questionnaire (Appendix 4) used in this study was preceded by the pretesting of a shorter version of a similar questionnaire. The eighth grade has three levels of achievement groups, high, medium, and low. For the purposes of this study the high and medium achievers were collapsed and simply called the "higher ability group", and the low achievers were named the "lower ability group". While the former (HAG) cont contained 110 members, the latter (LAG) contained 36 members. The questionaire was administered to all the members of both groups, i. e. 146 eighth grade students.

In terms of content, the questionaire is organized in such a way as to get at, (1) the relative influence of three, analytically separable sets of independent variables on academic behaviour. More specifically, we attempt to determine the relation between a "social structural" "reinforcement" and "imitation" paradigm and membership in high or low ability groups. Sections A, B, and C in Appendix 5 contains the sets of questions pertinent to each of these paradigms; (2) the relationship between the expectations and wishes of others and the attitudes, expectations and behaviour of students. Section D in Appendix 4; (3) differences in the attitudes of members of two racially dissimilar (ability) groups toward such things as, trustiworthness of teachers, and students, the relation between school work and grades, school work and occupational roles, etc. Section E in Appendix 4; (4) intra, and extra differences in the behaviour of members of high and low ability groups. Section F in Appendix 4.

Questionnaire data are presented and analyzed simply in terms of percentage differences.

# Chapter 3

## Results and Discussion

The findings of this study will be organized and presented in two parts. Part 1 is designed to present the reader with an answer to the question: In what ways do a sample of members of eighth grade low ability group differ from a sample of members of an eighth grade high ability group? The data here are the pencil and paper responses of eighth grade students to a questionaire (Appendix 5). Of the 146 students who completed the questionnaire, the high ability group (HAG) contained 110, and the low ability group (LAG) 36, students. Part 11 of this chapter is designed to present the reader with an answer to a much more specific question: How frequently do students emit various classes of responses while actually in the classroom? The data here are the observations of classroom behaviour in terms of predetermined behavioural categories (Appendix 2). These observations of frequency of emission of certain behaviours are limited to the classroom behaviour of eighteen members of the aforementioned eighth grade low ability group.*

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*The therapeutic strategies to be implimented this Fall will be limited to this latter groups of students.

## Part 1: Comparison of High Ability and Low Ability Groups along a Number of Selected Attitudinal and Behavioural Dimensions.

The pre-test questionaire used in this study was designed not only to measure a variety of student attitudes and behaviours, but also to measure the relative influence of the three classes of "independent" variables alluded to in the previous chapter. We shall begin by presenting data which describe similarities and differences in the reported influences of each of these classes of variables on a number of attitudes and behaviour germane to the educational process in a biracial setting. In examining the tables which follow two general questions ought to be kept constantly in mind. First of all, are the percentage differences between High Ability Group (HAG) and (LAG) groups sufficiently large to warrant further and better study? In interpreting our findings, a percentage difference of 10.0% of less is treated as no difference or "roughly equivalent". Secondly, are such differences stable? One should observe extreme caution in making decisions based on percentage differences, when one of the groups being compared has only 36 members* More specifically, taking membership in the high or low ability group as the dependent variable, the tables which follow show how high and low ability groups of students in a small, non-urban "academic" town differ from each other in terms of the distribution of their members responses to questions which measure respectively social structural, imitation, and reinforcement influences. Discussion accompanies each of the tables presents.

Social Structural Influences: (a)Demographic Characteristics

--- Table 1 here ---

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*It is hoped that a "non-statistical" analysis of the data will encourage the non-mathematically minded but interested person, to read this report.

Table 1: Ability Groups By Sex

| | High Ability n | High Ability % | Low Ability n | Low Ability % |
|---|---|---|---|---|
| 1. Male | (56) | 51.4 | (22) | 61.1 |
| 2. Female | (53) | 48.6 | (14) | 38.9 |
| Totals | (109) | 100.0 | (36) | 100.0 |

Table 1 shows that the low ability group contains a slightly higher percentage of males, actually 61.1% as compared with 51.4%. The possibility of non-intellective or ability factors entering into the process of assigning students to one or other ability group combined with the possibility that male students represent greater disciplinary problem for teachers may account for this finding, (i. e. problem students get shoved into one class where they can least hinder other children who may want to learn). However, the difference is so small as to merit no further comment.

Age

--- Table 2 here ---

The above table shows that compared with the high ability group, the low ability group has a somewhat larger percentage of younger students. Thus, while 40% of the high ability group were aged 13 years of younger, almost 64% of the low ability group were located in the same age range. What is it about relative youthfulness that increases the probability of recruitment to the low ability group? One possible answer to this question may inhere in the average age at which members of each group started school. Suppose members of the low ability group did in fact start going to school at an earlier age than did members of the high ability group. This would mean that members of the former group would spend a greater proportion of their classroom time in the presence of older children to the extent that peer group status is partly related to age and to the extent also that competition with older children created undue anxiety, the interaction of younger children with older children might be detrimental to the acquisition of transmitted knowledge and/or educational performance Unfortunately our data does not enable us to provide a less speculative answer.

Table 2: Ability Groups By Age

| | High Ability n | High Ability % | Low Ability n | Low Ability % |
|---|---|---|---|---|
| 1. Twelve years | (1) | 0.9 | (5) | 13.9 |
| 2. Thirteen years | (43) | 39.1 | (18) | 50.0 |
| 3. Fourteen years | (61) | 55.5 | (11) | 30.5 |
| 4. Fifteen years | (4) | 3.6 | (2) | 5.6 |
| 5. Sixteen years | (1) | 0.9 | (0) | 0.0 |
| Totals | (110) | 100.0 | (36) | 100.0 |

Table 3: Ability Groups By Race

| | | High Ability | | Low Ability | |
|---|---|---|---|---|---|
| | | n | % | n | % |
| 1. | Black | (7) | 6.4 | (30) | 83.3 |
| 2. | White | (101) | 91.8 | (5) | 13.9 |
| 3. | Other | (2) | 1.8 | (1) | 2.8 |
| | Totals | (110) | 100.0 | (36) | 100.0 |

*Table 4: Median Test Scores for 1st and 12th Grade Students, Fall 1965, National Sample.

| Test | Racial or Ethnic Group + | |
|---|---|---|
| | American Negroes | Majority of Americans (White) |
| 1st Grade: | | |
| Non Verbal..................... | 43.4 | 54.1 |
| Verbal......................... | 45.4 | 53.2 |
| 12th Grade: | | |
| Non Verbal..................... | 40.9 | 52.0 |
| Verbal......................... | 40.9 | 52.1 |
| Reading........................ | 42.2 | 51.9 |
| Mathematics.................... | 41.8 | 51.8 |
| General information............ | 40.6 | 52.2 |
| Average on five tests.......... | 41.1 | 52.0 |

*Adopted from Table 9, p. 20 of Equality of Educational Opportunity, J. S. Coleman et al (Eds.). U. S. Dept. H.E.W. OE-38001, 1966.

+ A median observation is that observation which divides a group in half. Thus, by looking at this table we learn that 50% of the Negro students scored above 41.8 on the Mathematics test and 50% scored below 41.8 on the same test.

## Race

Data presented in Table 3 indicates quite clearly that race influences recruitment to ability groups. While almost 84% of the students in the low ability group are Negro, only 7% of the students in the high ability group fall into the same socially defined racial category. Conversely, over 90% of the students in the high ability group are white and only about 14% of the students in the low ability group fall into the same racial category. That the direction of these percentage differences are neither novel nor confined to the peculiarities of region and/or the specific subjects of our study, is indicated by Table 4. How can one best explain the data presented in Tables 3 and 4? We shall consider a number of not necessarily competing explanations: commencing with one which accounts for the observed differences between Negroes and white in terms of differences in intelligence.

Coleman et al. respond to this explanation by pounding out that the tests presented in Table 4 "do not measure intelligence, attitudes or qualities of character", but do measure, "the skills which are the most important for getting a good job." We do not share the Coleman groups certainly, that taken together, the tests referred to do not at least partially measure behaviour, consensually validated as "intelligent". Nor, incidentally, do we share the reluctance of the Coleman group to even consider the possibility that at least part of the observed variation in intelligent-behaviours may be attributable to genetic differences between Negroes and whites.[1]

--- Table 3 here ---

--- Table 4 here ---

So far as our data are concerned, the reader should recall that assignment to high or low ability groups respectively was not made on the basis of a completely "culture free" intelligence test. However, one should not assume therefore that innate differences in abilities are in no way reflected in the scores obtained by students in the tests which they did take. Now, suppose we are not incorrect in believing that differences in innate abilities explain part of the variations in intelligence test scores, does this mean that recruitment to high and low ability groups respectively is simply a function of these innate differences. The answer is NO. Intelligence test scores represent only one of the criteria actually used in assigning students whose test scores are relatively high may still find themselves in the low ability group because of deficits at the motivational level.

On the basis of these considerations it follows that we must account for the relation between racial or ethnic status and recruitment to low ability groups by systematically exploring the role of: (a) hereditary and experiential factors which make more probable deficits in the possession of specific skills deemed to be requisite to profitable participation in school and wider societal roles, and/or (b) strength of motivation to either attain the requisite skills or to actually utilize in prescribed ways, the skills the student or child does possess.

As we have indicated earlier, the data presented in Table 3 are routinely observed in educational research focusing an ethnic difference in educational attainment.[2] The attempts made to explain the data have resulted in a plethora of theories, personality deficit, psychoanalytic,

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[1] Audrey M. Shuey, The Testing of Negro Intelligence Social Science Press New York, 1966.

## Table 5: Ability Groups By Area of Residence

| | | High Ability | | Low Ability | |
|---|---|---|---|---|---|
| | | n | % | n | % |
| *1. | Urban | (41) | 38.0 | (8) | 23.6 |
| +2. | Small Town | (61) | 56.5 | (23) | 67.6 |
| °3. | Rural | (6) | 5.5 | (3) | 8.8 |
| | Totals | (108) | 100.0 | (34) | 100.0 |

*A metropolitan area is an area with 50,000+ persons. Areas with fewer inhabitants are defined as non-metropolitan. Our urban/non-urban distination roughly corresponds to the metropolitan/non-metropolitan dichotomy.

cultural (sensory) deprivation, cultural conflict.[3] A consideration of these theories in terms of their contribution to the development of practical and effective therapeutic strategies is reserved for the concluding chapter.

## Residence

According to the Coleman Report, the magnitude of Negro-white differences in test performance, increases as one moves from one part of the country to another. Thus, "Southern Negroes score farther below Southern whites than Northern Negroes score below Northern whites" (page 20). On the basis of this finding it would seem that residence in the South is related to the assumption of low ability status. Can one arrive at the same conclusion if one crudely classifies area of residence as either urban, small town or rural and then looks at the distribution of students among ability groups by area of residence? Findings presented in Table 5 do not suggest an unambigious answer to the question.

--- Table 5 here ---

The above table indicates that differential recruitment to ability groups is influenced by variations in residential patterns. More specifically compared with the high ability group (38%), a smaller percentage (23.6%) of low ability group members come from Urban areas. While a difference of 14.4 percentage points represents a relatively small difference, the direction of the difference is consistent with findings based on national comparisons of metropolitan and non-metropolitan median scores on the tests presented in Table 4. Controlling for region (North, South, East or West),

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[3] Coleman, J. S. *et al*. Equality of Educational Opportunity. U. S. Department of Health, Education and Welfare, 1966, Document No FS 5. 238.38001. Hereafter, this document will be referred to as the Coleman Report.

Table 6: Ability Groups By Specific Types of Residential Area.

| | High Ability | | Low Ability | |
|---|---|---|---|---|
| | n | % | n | % |
| 1. A large city (e.g. Atlanta) (Urban) | (14) | 13.0 | (4) | 11.8 |
| 2. A large town (e.g. Greensboro, N.C.) (Urban) | (27) | 25.0 | (4) | 11.8 |
| 3. Always lived in Chapel Hill (Saml1 town) | (34) | 31.5 | (20) | 58.8 |
| 4. A small town (e.g. Chapel Hill but not Chapel Hill) (Small town) | (27) | 25.0 | (3) | 8.8 |
| 5. The country (Rural) | (6) | 5.5 | (3) | 8.8 |
| Totals | (108) | 100.0 | (34) | 100.0 |

Table 7: Percent of Pupils in Secondary
Schools Having the School Characteristic
Specified at Left, Fall 1965.

| Characteristic + | Whole Nation |  | Non-Metrololitan South |  | Metropolitan South |  |
|---|---|---|---|---|---|---|
|  | Negroes | Majority | Negroes | Majority | Negroes | Majority |
| A. Facilities |  |  |  |  |  |  |
| 1. Shop with power tools | 89 | 96 | 85 | 90 | 89 | 90 |
| 2. Biological laboratory | 93 | 94 | 85 | 83 | 95 | 100 |
| 3. Chemistry laboratory | 94 | 98 | 85 | 91 | 94 | 100 |
| 4. Physics laboratory | 80 | 94 | 63 | 83 | 83 | 100 |
| 5. Languages laboratory | 49 | 56 | 17 | 32 | 48 | 72 |
| 6. Free text books | 70 | 62 | 51 | 43 | 58 | 34 |
| B. Accreditation and Curricula |  |  |  |  |  |  |
| 1. Regionally accredited classes | 68 | 76 | 40 | 59 | 46 | 65 |
| 2. Remedial reading teacher | 53 | 52 | 24 | 20 | 28 | 31 |
| 3. Low IQ classes | 54 | 49 | 23 | 20 | 37 | 34 |
| 4. Accelerated curriculum | 61 | 66 | 46 | 58 | 72 | 81 |
| C. Teachers (in schools attended by average white & minority pupil) |  |  |  |  |  |  |
| 1. Percent Negro teachers | 59 | 2 | 85 | 2 | 94 | 1 |
| 2. Percent white teachers | 38 | 97 | 13 | 98 | 3 | 99 |
| 3. Average pupils per teacher | 26 | 22 | 30 | 25 | 26 | 25 |

*Source: Tables 2, 4, 6b. pp. 11, 14, 17. Coleman Report. ibid.

+ The table should be read in this way: 89% of a national sample of a Negro population of students attended a school having a shop with power tools.

Coleman et al present data which enable them to conclude that achievement is higher "in metropolitan areas than outside metropolitan areas"* (p.219). Our next question must be: What accounts for the observed relationship between urban/non-urban residence and educational achievement?

One answer to this question is suggested by examining Table 6.* This table shows that almost 60% of students in the low ability group had "always lived in Chapel Hill": while only 31.5% of those in the high ability group fall into the same response category. The 54 students HAG (34) + LAG (20) are the only students of whom one may say unambiguously they have always lived in a small town in the South.* The reported residence of all other students may or may not be located in the South. Thus, we have region North, East and West vs South, and region Urban or non-urban, confounded. If our "urban respondents also came from the North then the differential presence in these two region, of factors associated with educational achievement would explain part of the variation in differential recruitment to ability groups. Relevant data are provided in the two tables that follow:

--- Table 6 here ---

--- Table 7 here ---

The Coleman et al data suggest that the differential allocation of those educational resources most clearly related* to educational achievement may be one important factor in explaining differential achievement in both types of region (i. e. North, South, East, and West and Metropolitan, non-metropolitan). Our data do not enable us to partial out the relative influence of each type of region. All we can say is that, almost 60% of the students in the low ability group have alwasy lived in a non-urban, university town, located in the Southern part of the United States. Only 32% of the high ability students fall into the same category.

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*As in the Coleman Report, North Carolina is considered to be in the South.

## Educational History

If it is reasonable to suppose that the earlier in life one is exposed to educational influences the better one is equipped to compete with one's peer's at school, then our data ought to show that compared with the low ability group, a higher proportion of high ability group numbers attended either nursery school or kindergarden before entering grade one of the regular school system. In point of fact, our data do not support nor deny the contention that such a supposition is indeed reasonable Of the 110 members of the high ability group, 35% (39) had attended nursery school: of the 35 members in the low ability group, 37% had attended nursey schools. To the extent that the primary function of the nursery schools attended by low ability group members was in the area of "baby-sitting" and not directly related to educational achievement training, the original supposition may be quite reasonable.

One element in the educational history of our students which appears to be related to recruitment to ability groups is given by the answer to the question: What was the first grade you attended with students from another race?

--- Table 8 Here ---

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*On other factors, perhaps less obviously related to achievement, Southern, non-urban schools are as well if not better endowed with facilities. See pp. 35-205, Coleman Report.

Table 8: Ability Groups By First Grade Attended with Students From Another Race

| | High Ability | | Low Ability | |
|---|---|---|---|---|
| | n | % | n | % |
| 1. Before Grade Seven | (71) | 70.3 | (8) | 24.2 |
| 2. Grade Seven | (30) | 29.7 | (22) | 66.6 |
| 3. Grade Eight | (0) | 0.0 | (3) | 9.1 |
| Totals | (101) | 100.0 | (33) | 99.9 |

Table 9: Ability Groups By Number of Persons Living at Home

| | High Ability | | Low Ability | |
|---|---|---|---|---|
| | n | % | n | % |
| 1. Three or less | (9) | 8.4 | (4) | 12.1 |
| 2. Five or less | (61) | 57.0 | (12) | 36.4 |
| 3. Six or more | (37) | 34.6 | (17) | 51.5 |
| Totals | (107) | 100.0 | (33) | 100.0 |

Table 10: Ability Groups By Number of Children (under 18) Living at Home

| | High Ability n | High Ability % | Low Ability n | Low Ability % |
|---|---|---|---|---|
| 1. Two or less | (48) | 45.3 | (14) | 43.8 |
| 2. Four or less | (57) | 53.8 | (9) | 28.1 |
| 3. Five or more | (1) | 0.9 | (9) | 28.1 |
| Totals | (106) | 100.0 | (32) | 100.0 |

Table 8 suggests that the earlier the grade at which a student enters a bi or multiracial classroom the less likely he is to become a member of the low ability group. However, such a conclusion would certainly not be warranted on the basis of this table alone, for, the earlier interaction of high ability students with students from another race might be more a function of *where* they attended the school in question, (see Table 7) than of bi-racial interaction *per se*. In any case, even if interaction *per se* did explain a substantial portion of the variation in recruiteint· the direction of the influence of this variable is not in the direction we would expect. Given the inequalities in educational opportunities under which Negro Americans labour, we would expect Negroes to gain more from inter-racial interaction than vice versa. The reader will recall that over 90% of the students in the high ability group are white.

### Household Composition

Compared with the high ability group members of the low ability group appear to come from homes with many more people in them. Table 9 shows that while 34.6% (37) of students in the high ability groups came from homes with six or more persons, almost 52% (17) of the students in the low ability group came from a home with the same number of persons.

--- Table 9 here ---

The same pattern prevails when we focus on children rather than the more inclusive category of "persons". Table 10 shows that while 28% (9) of low ability group members came from homes with five or more children, only 0.9% (1) person in the high ability group came from a home with the same number of children.

--- Table 10 here ---

Because both of these variables are so highly correlated with social class position it is not possible--given our data--to provide more than a speculative account of the findings in terms of: (a) simple lack of facilities to study or complete homework assignments (b) demands on the students time in looking after very young or very old persons in the house, or in contributing financially to the home budget (c) at the motivational level, parents cannot establish nor maintain the degree of emotional investment in each child requisite to motivating the child to achieve in school activities?

At the motivational level, presence or absence of biological parents might also be relevant to differential recruitment to ability groups. Table 11 indicates that absence of biological father from the home does influence recruitment to the low ability group. Thus, 88.9% (96) of high ability group studetns were living at home with biological father present. This compares with 70.6 (24) for the low ability group. Here again, we emphasize that a relatively unambigious explanation of this relationship can only be given if adequate controls are instituted. Table 11 shows quite clearly that presence or absence of biological mother is not a good predictor of recruitment to ability groups.

--- Table 11 here ---

--- Table 12 here ---

Occupational Status of Parents

Along with sex, age, and race, socio-economic-status (SES) is a key variable in the analysis of a great number and variety of sociological problems. The concept of SES refers to "composite of social and economic attributes that tend to cluster together"[3] Perhaps the best single

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[3] Kahl, J. A., and Davis, J. A. A comparison of indexes of socio-economic status. American Sociological Review, 20(1955), 317-325.

Table 11: Ability Groups By Who Acts as Father

| | High Ability | | Low Ability | |
|---|---|---|---|---|
| | n | % | n | % |
| 1. Real father who lives at home | (96) | 88.9 | (24) | 70.6 |
| 2. Real father who is not living at home | (6) | 5.6 | (3) | 8.8 |
| 3. Step-father | (3) | 2.8 | (3) | 8.8 |
| 4. Other Relative | (0) | 0.0 | (3) | 8.8 |
| 5. Other Non-relative | (1) | 0.9 | (0) | 0.0 |
| 6. No one | (2) | 1.8 | (1) | 3.0 |
| Totals | (108) | 100.0 | (34) | 100.0 |

## Table 12: Ability Groups By Who Acts As Mother

| | | High Ability | | Low Ability | |
|---|---|---|---|---|---|
| | | n | % | n | % |
| 1. | Real mother who is living at home | (108) | 98.2 | (33) | 94.3 |
| 2. | Real mother who is not living at home | (1) | 0.9 | (1) | 2.6 |
| 3. | Step mother | (1) | 0.9 | (0) | 0.0 |
| 4. | Foster mother | (0) | 0.0 | (1) | 2.6 |
| | Totals | (110) | 100.0 | (35) | 99.5 |

index of this composite of attributes is an occupational scale. Our occupational scale is very crude and consists simply of a division of the occupations specified into high, medium and low. These divisions roughly indicate high, middle, and low, SES position. Sociological research has shown that SES position is correlated with a variety of attitudes and behaviours relevant to the political, economic, religious, familial and educational aspects of social life.[4] Tables 13 and 14 would seem to indicate that our data is consistent with the findings of other studies that show that low achievers are over-represented in the lower SES groups.

--- Table 13 here ---

--- Table 14 here ---

These tables show that almost 72% of the los ability group come from homes in which the father is the encumbent of a low rank occupational role. This compares with 14% for the high ability group. In the case of gainfully employed mothers, the same percentage difference is even greater. These differences however, cannot be explained simply in terms of the observed variations in SES or occupational position, for, in our sample of students, SES position is virtually coterminous with race.[5] Table 15 shows that the relationships between SES position and Race is highly significant.

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[4] Broom, L. and Selznick, D. Sociology, New York: Harper, 1963

[5] One example of variations in behaviour which is a function of racial status rather than of occupational position is "political participation", With occupation held constant, a Negro/White comparison reveals that a smaller percentage of Negroes tend to participate politically. Matthews, D. R., and Prothro, J. W. Negroes and The New Southern Politics. New York: Harcourt, Brau and World, 1966.

Table 13: Ability Groups By Occupation of Father

| Occupational Roles | High Ability n | High Ability % | Low Ability n | Low Ability % |
|---|---|---|---|---|
| 1. High Rank | (82) | 76.6 | (9) | 27.3 |
| 2. Medium Rank | (10) | 9.3 | (0) | 0.0 |
| 3. Low Rank | (15) | 14.0 | (24) | 72.7 |
| Totals | (107) | 99.9 | (33) | 100.0 |

Table 14: Ability Groups By Occupation of Mother

| Occupational Roles | High Ability<br>n | % | Low Ability<br>n | % |
|---|---|---|---|---|
| 1. High Rank | (2) | 2.2 | (0) | 0.0 |
| 2. Medium Rank | (31) | 34.8 | (5) | 17.2 |
| 3. Low Rank | (8) | 9.0 | (21) | 72.4 |
| 4. Housewife only | (48) | 53.9 | (3) | 10.3 |
| Totals | (89) | 99.9 | (29) | 99.9 |

Table 15: Relation Between Occupational Rank of Father

Ethnic Status of Eighth-Grade Student Sons.*

| | Negro | White | Total |
|---|---|---|---|
| High Occupational Rank | 3<br>(3.5) | 82<br>(96.5) | 85<br>(63.4) |
| Medium Occupational Rank | 0<br>(0.0) | 10<br>(1.0) | 10<br>(7.5) |
| Low Occupational Rank | 27<br>(69.2) | 12<br>(30.8) | 39<br>(29.1) |
| Total | 30<br>(22.4) | 104<br>(77.6) | 134+<br>(100.0) |

$X^2$ ==69.5321, $p < .001$

*The table should be read in this way: Assuming that level of measurement and independence of observations assumptions are met, only about 1 time in a thousand tries ( $p < .001$) would we be likely to find a chi square $\geq$ 69.5321 if there was in fact no relationship between occupational rank and ethnic status.

+Of the 146 students in Grade 8, only 134 responded to both the Race and the 565 question.

statistically. We are of the view that the observed relationship is also of great substantive significance.

### Summary: Profile of Low Ability Group Terms of Social Structural Antecedents

The structural antecedents considered in the preceding section were: Sex, Age, Race, Residence, Educational History, Household Composition and Occupational status of Parents. In terms of these antecedents, and compared with the high ability group, the low ability groups contains:

(1) a slightly higher percentage of males

(2) a somewhat higher percentage of younger students

(3) a much higher percentage of Negro students'

(4) a moderately higher percentage of students who have always lived in a Southern, non-urban setting.

(5) a somewhat higher percentage of students who come from homes with six or more adult persons.

b) a somewhat higher percentage of students who come from homes with five or more children.

(6) a much lower percentage of students who come from homes in which the father or mother is the encumbent of a lowly ranked occupational role.

### Reinforcement Paradign

*Theoretical Preamble** To the extent that achievement in school is functionally related to both within school and extra school experiences, the question arises as to the nature of the processes in terms of which organisms learn from experience. Skinner, an operant conditioner, has spent literally thousands of hours demonstrating that the consequences which accompany or follow the envision of a response are crucial to the process of learning. If these consequences increase the frequency of the behaviour with which they are paired they are called positive reinforcers or rewards. Consequences which decrease the probability of the response with which they are paired are called punishments. Now, consequences (rewarding or punishing) either are, or can be paired with, particular types of behaviour in a variety of temporal associations or schedules. It every observed behaviour is positively reinforced (rewarded) we would be applying to that behaviour a continuous schedule of reinforcement (CRF) If however, only selected instances of the behaviour were positively reinforced, we would be applying to that behaviour an intermittent schedule of reinforcement. Each of these two types is associated with certain performance characteristics. Behaviour that is rewarded every time it occurs is repeated regularly but lends to return quickly to its pre-CRF rate if reingorcement ceases. Behaviour that is rewarded on one or other of the intermittent schedules of reinforcement generally produces a high and fairly constant rate of responding, a rate of behaviour which is far more durable than that maintained on a CRF schedule --- that is to say, the behaviour continues to be emitted for long periods of time or over many responses, even in the absence of reinforcement. In general, one would use a CRF schedule during the initial phases of teaching and then move to some sort of intermittent schedule when the desired response has been acquired and is being performed at a sufficiently high rate. In any analysis or operant behaviour, schedules or reinforcement and punishment are as important in controlling behaviour as in the value or the intensity, of the reward or punishment.

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*Only a selected presentation of reinforcement theory is included here. For a clear introduction to the details of this approach to human social behaviour, see Reese, H. Operant Analysis of Human Behaviour. Chicago: Wm Brown & Co. 1967.

Finally, in many every day situations persons emit behaviours which are rewarded by members of some groups, punished by members of other group and simply ignored by members of yet other groups. How does simultaneous exposure to these conflicting contingencies influence the probability of emission of the behaviour in question? Before attempting to answer this question, let us rephrase it in more concrete terms. Suppose a student, by studing hard and for long hours, obtains an "A" grade on a completed assignment, what is the probability that the student will in the future emit those classes of responses. (studying hard and long) which resulted in an "A" grade under this arrangement of contingencies: Parents rewarded him, teachers rewarded him, brothers and sisters rewarded him, but classmates punished him. This probability is a function of (a) the value of the rewards being dispensed by teachers, siblings and teacher jointly and severally versus the value of the punishment being administered by peers, and (b) the schedule under which similar behaviour was revealed. or punished in the part by each of the parties concerned. Thus, the probability of a response being emitted is a function of the value of whatever is being paired with the behaviour, times the probability of gaining this something by emitting the behaviour. This latter probability is in turn a function of the type of schedule being utilized.

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*Types of intermittent schedules operative in a number of everyday situations:

Fixed interval schedule --- Example: weekly wage rates
Fixed ratio schedule --- Example: piece rates
Variable ratio schedule --- Example: salesman knocking on doors

Table 16: Ability Groups By Selected Rewards Administered By Father, Mother, Siblings, Peers, Teachers Contingent Upon Good Performance at School.

| 0. Of the things listed here, what does each of these people do when you do well in school? | | FATHER | | | | MOTHER | | | | SIBLINGS | | | | PEERS | | | | TEACHERS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | HAG* | | LAG | | HAG | | LAG | | HAG | | LAG | | HAG | | LAG | | HAG | | LAG | |
| | | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % |
| 1. Tells me how please he, she, they are | NO | (15) | 14.3 | (15) | 50.0 | (13) | 11.9 | (14) | 40.0 | (95) | 92.9 | (25) | 92.6 | (89) | 81.0 | (31) | 88.6 | (84) | 76.4 | (28) | 77.8 |
| | YES | (90) | 85.7 | (15) | 50.0 | (96) | 88.1 | (21) | 60.0 | (8) | 7.8 | (2) | 7.4 | (21) | 19.0 | (4) | 11.4 | (26) | 23.6 | (8) | 22.2 |
| Sub-totals | | 105 | 100.0 | 30 | 100.0 | 109 | 100.0 | 35 | 100.0 | 103 | 100.0 | 27 | 100.0 | 110 | 100.0 | 35 | 100.0 | 110 | 100.0 | 36 | 100.0 |
| 2. Hugs or kisses administered | NO | - | - | - | - | (102) | 92.7 | (33) | 94.3 | - | - | - | - | - | - | - | - | - | - | - | - |
| | YES | - | - | - | - | (8) | 7.3 | (2) | 5.7 | - | - | - | - | - | - | - | - | - | - | - | - |
| Sub-totals | | - | 100.0 | - | - | 110 | 100.0 | 35 | 100.0 | - | - | - | - | - | - | - | - | - | - | - | - |
| 3. Lets me do something special | NO | (95) | 90.5 | (26) | 86.6 | (98) | 89.0 | (30) | 85.7 | - | - | - | - | - | - | - | - | (108) | 98.2 | (33) | 91.7 |
| | YES | (10) | 9.5 | (4) | 13.3 | (12) | 11.0 | (5) | 14.3 | - | - | - | - | - | - | - | - | (2) | 1.8 | (3) | 8.3 |
| Sub-totals | | 105 | 100.0 | 30 | 99.9 | 110 | 100.0 | 35 | 100.0 | - | - | - | - | - | - | - | - | 110 | 100.0 | 36 | 100.0 |
| 4. Tells other people about it | NO | (101) | 96.2 | (29) | 96.6 | - | - | - | - | (101) | 99.0 | (26) | 96.2 | (100) | 90.9 | (33) | 94.3 | (103) | 93.6 | (35) | 97.2 |
| | YES | (4) | 3.8 | (1) | 3.3 | - | - | - | - | (1) | 1.0 | (1) | 3.7 | (10) | 9.1 | (2) | 5.7 | (7) | 6.4 | (1) | 2.8 |
| Sub-totals | | 105 | 100.0 | 30 | 99.9 | - | - | - | - | 102 | 100.0 | 27 | 100.0 | 110 | 100.0 | 35 | 100.0 | 110 | 100.0 | 36 | 100.0 |
| 5. Gives me something special | NO | (92) | 87.6 | (21) | 70.0 | (101) | 91.8 | (30) | 85.7 | - | - | - | - | - | - | - | - | - | - | - | - |
| | YES | (13) | 12.3 | (9) | 30.0 | (9) | 8.2 | (5) | 14.3 | - | - | - | - | - | - | - | - | - | - | - | - |
| Sub-totals | | 105 | 99.9 | 30 | 100.0 | 110 | 100.0 | 35 | 100.0 | - | - | - | - | - | - | - | - | - | - | - | - |
| Sub-totals (1 - 5) | NO | 303 | 72.1 | 91 | 75.8 | 314 | 71.5 | 107 | 76.4 | 196 | 95.6 | 51 | 94.4 | 189 | 85.9 | 64 | 91.4 | 295 | 89.4 | 96 | 88.9 |
| | YES | 117 | 27.8 | 29 | 24.2 | 125 | 28.5 | 33 | 23.6 | 9 | 4.4 | 3 | 5.6 | 31 | 14.1 | 6 | 8.6 | 35 | 10.6 | 12 | 11.1 |
| TOTALS | | 420 | 100.0 | 120 | 100.0 | 439 | 100.0 | 140 | 100.0 | 205 | 100.0 | 54 | 100.0 | 220 | 100.0 | 70 | 100.0 | 330 | 100.0 | 108 | 100.0 |

*HAG refers to High Ability Group
LAG refers to Low Ability Group
This notation is retained in all relevant tables which follow

Applying these considerations to the example given, we would conclude that the probability of the future emission of "study behaviour requisite to obtaining an A grade" would decrease under this arrangement of contingencies: (a) the disapproval and ostracism of one's peers is much more "costly" than is the verbal disapproval of parents, sibs, and teachers. (b) whereas peer disapproval and ostracism has followed every observed instance of the behaviour in the past, parents, sibs and teachers have never continously paired rewards with "study behaviour requisite to obtaining an A grade".

In sum: To the extent that parents, sibs, teachers, and peers play a part in teaching the student, we can with Skinner, apply to the more or less systematic teaching efforts of all these groups the definition of teaching as "an arrangement of contingencies of reforcement (or punishment) under which behaviour changes".[6] The data which follows indicates the relative efficiency of the teaching of each of these groups upon the achievement behaviour of students.

--- Table 16 here ---

The data presented in Table 16 represent the responses of high and low ability groups members respectively to the question: What does/do your father, mother, siblings, peers and teacher do when you do well in your school work? Circle each thing he does. Rows one to six indicate the specific type of rewardadministered. These rewards can be roughly by classified as follows:

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[6] Skinner, B. F., Why Teachers Fail. Saturday Review Oct. 16. 1965, p. 102.

Row 1 = verbal reinforcement (social approval) administered directly to student.

Row 2 = verbal reinforcement (social praise) mediated by the response of others to whom the information has been paired, or by the knowledge that significant others possess information indicating ones level of academic achievement.

Row 3 = physical affection

Row 4 & 5 = material or other tangible rewards which in themselves are rewarding, regardless of any direct social approval, praise or physical affection which might accompany them.

For any given other, i. e. Father, Mother, etc., the number of times they do or do not administer the rewards specified in rows one to six, is added together and presented Row 7 (Subtotal 1-5). Finally, for each specified reward, a percentage distribution and sub-total is included. Now, whereas the grand sub-total (Row 6) enables us to compare the overall amount of reinforcement administered by each other to students in high and low ability groups respectively, each sub-total specific to one type of reward enables us to compare the amount of that particular reward being administered by a particular other to high and low ability groups respectively. For example, Table 16 shows that of the 420 responses made by high ability group members, 27.9% (117) were positive. This compares with 24.2% (29) for the low ability group. Our conclusion is that the overall amount of positive reinforcement administered by fathers of students in each group is roughly equivalent.*

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*The reader will recall (P.14) that a difference of 10.0% or less is treated as roughly equivalent.

Next, moving up to the top left hand cell of the table we discover that of the 105 high ability group students who answered this specific question, 85.7% (90) replied that their father's did say how pleased he was with their academic efforts. Only 50.0% (15) of the low ability group of students responded in the same way to the same specific question. Our conclusion is that compared with low ability group students, a larger percentage of high ability group members come from homes in which the father administers direct-verbal reinforcement for academic effort.

Retaining our focus on the Row 1 reward (social approval) but moving along in column to mother, we obtain a finding similar to that which obtained in the case of father. Compared with members of the high ability group, a larger percentage of low ability group students report that their mother rewards them with social approval for doing well at school. Whereas between high and low ability groups was about 36%, in the case of the mother the difference drops slightly, to almost 28%. Finally, the percentage of students in each ability group reporting that siblings, peers, and teachers reward with social approval for doing well in school is roughly equivalent.

This latter pattern, i. e. that of rough equivalence in amount of reinforcement administered by the various others also obtains for the rewards specified in Rows 2,3, and 4. On the basis of these three specific rewards administered by Father, Mother, Sibs, Peers and Teachers, one cannot reliably discriminate between high and low ability group students. Such a discrimination can be made on the basis of the administration of the reward specified in Row 5. Here, we find that compared with high ability group students, a larger percentage of low ability group members report that their fathers "give them something special" for doing well in school. Here, the percentage difference between the two ability groups is approximately 17.0%. In the case of mother, a relatively small percentage difference about 6% separates the groups.

Focusing now on the amount of overall positive reinforcement administered to members in each of the two groups we find that rough equivalence obtains across all others. That is to say, the total amount of reinforcement administered respectively by father, mother, sibs, peers and teachers to the members of each group is similar. To illustrate this point, let us look at the teacher column. Of the 330 responses by high ability group members to the five specific questions concerning rewards 10.6% replied that teachers did in fact do the things specified in the question. This compares with 11.1% for the low ability groups. For no single person listed ( i.e. father etc.) is there a between group difference of more than 5.0%.

On the basis of these findings it would seem that so far as increasing the probability of doing well in school was concerned: (a) the rewards administered by parents have greater reinforcing power (i. e. value) than rewards administered by either mother, siblings, peers, or teachers. (b) the rewards administered by the father have greater reinforcing power than rewards administered by either the mother, siblings, peers or teachers (c) social approval (verbal reinforcement -- Row 1) has greater reinforcing power than the other four reinforcers or rewards so far as the behaviour of the high ability group members is concerned, (d) material rewards (Row 5) have greater reinforcing power than less effective as reinforcers are the

Table 17: Ability Groups By Frequency of Reinforcement Administered Respectively By Father, Mother, Siblings, Peers and Teachers For Doing Well in School

| | FATHER | | | | MOTHER | | | | SIBLINGS | | | | PEERS | | | | TEACHERS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | HAG | | LAG | | HAG | | LAG | | HAG | | LAG | | HAG | | LAG | | LAG | | LAG | |
| | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % |
| 1. Every time | (78) | 75.0 | (17) | 56.7 | (91) | 84.2 | (25) | 73.5 | (64) | 75.3 | (12) | 46.1 | (74) | 70.5 | (13) | 40.6 | (68) | 62.4 | (19) | 55.9 |
| 2. Half or few times | (26) | 25.0 | (13) | 43.3 | (17) | 15.8 | (9) | 26.4 | (21) | 24.7 | (14) | 53.8 | (31) | 29.5 | (19) | 59.4 | (41) | 37.6 | (15) | 44.1 |
| Totals | 104 | 100.0 | 30 | 100.0 | 108 | 100.0 | 34 | 100.0 | 85 | 100.0 | 26 | 100.0 | 105 | 100.0 | 32 | 100.0 | 109 | 100.0 | 34 | 100.0 |

the other reinforcers, so far as the behaviours of the low ability group members is concerned, (e) social approval administered by the father has the greatest reinforcing power so far as the behaviour of the high ability group members is concerned, (f) material rewards administered by the father has the greatest reinforcing power so far as the behaviour of the low ability group members is concerned.*

As we indicated in the preamble to this sub section, the probability that a given behaviour (e.g. doing well in school) will be emitted is a function not simply of the value of reinforcement but also of the type of schedule under which the reinforcement is paired with the behaviour innquestion.[7] Now, whereas Table 16 contained data pertinent to the first of these variables, Table 17 contains data relevant to the second. More specifically, Table 17 shows the reported frequency with which each of the others appearing in the columnnheadings did the things listed in Table 16. In terms of frequency of reinforcement administered, Table 17 shows that compared with the low ability group, a larger percentage of the high ability group students were reinforced "every time" by father, mother, sibs, peers, and teachers respectively. So far as between person differences are concerned the greatest percentage difference is reported frequency of reinforcement between high and low ability groups occurs with respect to siblings. Whereas only 46.1% of the low ability group members reported that their siblings rewarded them every time they did well in school. 75.0% of the high ability groups responded in the same way --- a percentage difference of about 29.0%. For peers the percentage difference is 24.0%· for fathers 18.0%, mothers, 11.0% and finally teachers at 7 0%.

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*Exactly what behaviour is being reinforced is open to question.

[7] Reynolds, G. S. A Primer of Operant Conditioning Georgia: Scott. Foresman and Company, 1967.

--- Table 17 here ---

On the basis of the data presented in Table 17 it would seem reasonable to conclude that the variable "frequency of reinforcement" in related to "doing well in school" and so to recruitment to high or low ability groups. In this connection, it is also interesting to note that while sibs and peers are relatively unimportant in terms of the value of the reinforcers they administer, they become highly strategic stimulus persons in terms of the frequency with which they administer the rewards they do control. Do similar conclusions hold in the case of punishment?

The various types of punishment listed in Table 18 may be classified as follows:

(1) Social disapproved with simple exhortation

(2) Stronger social disapproval --- no direct exhortation

(3) Indicates to student that "something is wrong" and seeks the answer by approaching relevant others.

(4) Withdrawal of positive reinforcement --- social interaction.

(5) Indicates to student something is wrong and seeks to remedy the fault by helping student.

(6) Increases the "cost" of poor school work by decreasing the time which could have been or was formerly spent on non-school activities.

(7) Simple discusssion to discover "what is wrong."

--- Table 18 here ---

[illegible]

Father, Mother, Siblings, Peers and Teachers Contingent Upon Poor Performance at School

| 0. Of the things listed below, what does each of the persons listed do when you do poorly in school? | | FATHER | | | | MOTHER | | | | SIBLINGS | | | | PEERS | | | | TEACHERS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | HAG | | LAG | | HAG | | LAG | | HAG | | LAG | | HAG | | LAG | | HAG | | LAG | |
| | | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % |
| 1. Tells me to stop it and | NO | (78) | 74.3 | (23) | 74.2 | (82) | 74.5 | (19( | 55.9 | (94) | 91.3 | (20) | 71.4 | (100) | 90.9 | (30) | 85.7 | (83) | 76.1 | (19) | 54.3 |
| do better | YES | (27) | 25.7 | (8) | 25.8 | (28) | 25.5 | (15) | 44.1 | (9) | 8.7 | (8) | 28.6 | (10) | 9.1 | (5) | 14.3 | (26) | 23.9 | (16) | 45.7 |
| Sub totals | | 105 | 100.0 | 31 | 100.0 | 110 | 100.0 | 34 | 100.0 | 103 | 100.0 | 28 | 100.0 | 110 | 100.0 | 35 | 100.0 | 109 | 100.0 | 35 | 100.0 |
| 2. Scolds me and tells me how disappointed he, | NO | (87) | 82.8 | (28) | 90.3 | (89) | 81.0 | (29) | 85.3 | - | - | - | - | - | - | - | - | (100) | 90.9 | (34) | 97.1 |
| she, they are | YES | (18) | 17.1 | (3) | 9.7 | (21) | 19.0 | (5) | 14.7 | - | - | - | - | - | - | - | - | (10) | 9.1 | (1) | 2.9 |
| Sub totals | | 105 | 99.9 | 31 | 100.0 | 110 | 100.0 | 34 | 100.0 | - | - | - | - | - | - | - | - | 110 | 100.0 | 35 | 100.0 |
| 3. Talk(s) to teacher, princi- | NO | (96) | 91.4 | (23) | 74.2 | (97) | 88.2 | (31) | 91.2 | - | - | - | - | - | - | - | - | (109) | 99.1 | (34) | 97.1 |
| pal, or counselor | YES | (9) | 8.6 | (8) | 25.8 | (13) | 11.8 | (3) | 8.8 | - | - | - | - | - | - | - | - | (1) | 0.9 | (1) | 2.9 |
| Sub totals | | 105 | 100.0 | 31 | 100.0 | 110 | 100.0 | 34 | 100.0 | - | - | - | - | - | - | - | - | 110 | 100.0 | 35 | 100.0 |
| 4. Not talk to or run around with | NO | - | - | - | - | - | - | - | - | (95) | 92.2 | (26) | 92.9 | (94) | 85.4 | (29) | 82.8 | - | - | - | - |
| me | YES | - | - | - | - | - | - | - | - | (8) | 7.8 | (2) | 7.1 | (16) | 14.6 | (6) | 17.2 | - | - | - | - |
| Sub totals | | - | - | - | - | - | - | - | - | 103 | 100.0 | 28 | 100.0 | 110 | 100.0 | 35 | 100.0 | - | - | - | - |
| 5. Helps me with my | NO | (88) | 83.9 | (27) | 87.1 | (94) | 85.4 | (31) | 91.2 | (97) | 94.2 | (23) | 82.1 | (105) | 95.6 | (32) | 91.4 | - | - | - | - |
| homework | YES | (17) | 16.1 | (4) | 12.9 | (16) | 14.6 | (3) | 8.8 | (6) | 5.8 | (5) | 17.9 | (5) | 4.4 | (3) | 8.6 | - | - | - | - |
| Sub totals | | 105 | 100.0 | 31 | 100.0 | 110 | 100.0 | 34 | 100.0 | 103 | 100.0 | 28 | 100.0 | 110 | 100.0 | 34 | 100.0 | - | - | - | - |
| 6. Makes me spend more time on | NO | (77) | 73.3 | (24) | 77.4 | (84) | 76.4 | (28) | 82.4 | - | - | - | - | - | - | - | - | (100) | 90.9 | (32) | 91.4 |
| my homework | YES | (28) | 26.6 | (7) | 22.6 | (26) | 23.6 | (6) | 17.6 | - | - | - | - | - | - | - | - | (10) | 9.1 | (3) | 8.6 |
| Sub totals | | 105 | 99.9 | 31 | 100.0 | 110 | 100.0 | 34 | 100.0 | | - | - | - | - | - | - | - | 110 | 100.0 | 35 | 100.0 |
| 7. Talks to me | NO | (65) | 62.0 | (25) | 80.6 | (74) | 67.3 | (26) | 76.5 | (100) | 97.0 | (24) | 85.7 | (99) | 90.0 | (31) | 88.6 | (78) | 71.0 | (29) | 82.9 |
| about it | YES | (40) | 38.0 | (6) | 19.4 | (36) | 32.7 | (8) | 23.5 | (3) | 3.0 | (4) | 14.3 | (11) | 10.0 | (4) | 11.4 | (32) | 29.0 | (6) | 17.1 |
| Sub totals | | 105 | 100.0 | 31 | 100.0 | 110 | 100.0 | 34 | 100.0 | 103 | 100.0 | 28 | 100.0 | 110 | 100.0 | 35 | 100.0 | 110 | 100.0 | 35 | 100.0 |
| Sub totals | NO | 491 | 77.9 | 150 | 80.6 | 520 | 78.8 | 164 | 80.4 | 386 | 93.7 | 93 | 83.0 | 398 | 90.4 | 122 | 87.1 | 470 | 85.6 | 148 | 84.6 |
| (1-7 | YES | 139 | 22.1 | 35 | 19.4 | 140 | 21.2 | 40 | 19.6 | 26 | 6.3 | 19 | 17.0 | 42 | 9.6 | 18 | 12.9 | 79 | 14.4 | 27 | 15.4 |
| TOTALS | | 630 | 100.0 | 186 | 100.0 | 660 | 100.0 | 204 | 100.0 | 412 | 100.0 | 112 | 100.0 | 440 | 100.0 | 140 | 100.0 | 549 | 100.0 | 175 | 100.0 |

Focusing on Row 1 (Table 18) we find that, compared with the low ability group, a larger percentage of high ability group members report that their mothers, siblings and teachers pair "social disapproval with exhortation" with poor school work. The average percentage difference between low and high ability groups for all three of these persons is about 20% (18.6% for mothers, 19.9% for siblings, and 21.8% for teachers).

A glance at Row 3 indicates that fathers of high and low ability groups members respectively are reported to vary in the degree to which they pair "talking to teachers, counselors or principal" with poor school work. More specifically, while 8.6% of high ability group members report that their fathers emit the aforementioned behaviour for poor school work, 25.8% of low ability group students make the same response --- a percentage difference of about 17.0%.

Glance next at Row 7. Here one finds that, compared with members of the low ability group, a larger percentage of high ability group students report that their fathers and teachers pair "simple talk" with poor school work. The respective percentages here are, for fathers 38.0% (HAG) versus 19.4% (LAG), and for teachers, 29.0% (HAG) versus 17,1% (LAG). Percentage differences between the two groups is of the order of 18.6% and 11.9% respectively. Note that, compared with students in the low ability group, a smaller percentage of high ability group members report that their siblings pair "simple talk" with poor school work. The percentage difference here is 11.3%. With two exceptions, all remaining sub-cells in the table show rough equivalence in the distribution of responses within ability groups. These two exceptions are first the Row 3/father sub-cell, and second the Row 7/Siblings sub-cell.

Table 19: Ability Groups By Frequency of Punishment Administered Respectively By Father, Mother, Siblings, Peers and Teachers for Doing Poorly in School

| | FATHER | | | | MOTHER | | | | SIBLINGS | | | | PEERS | | | | TEACHERS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | HAG | | LAG | | HAG | | LAG | | HAG | | LAG | | HAG | | LAG | | HAG | | LAG | |
| | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % |
| 1. Every time | (70) | 67.9 | (19) | 65.5 | (77) | 80.8 | (22) | 66.6 | (62) | 67.4 | (14) | 51.8 | (71) | 68.3 | (12) | 35.3 | (55) | 51.4 | (17) | 51.5 |
| 2. Half or few times | (33) | 32.1 | (10) | 34.4 | (19) | 19.2 | (11) | 33.4 | (30) | 32.6 | (13) | 48.1 | (33) | 31.7 | (22) | 64.7 | (52) | 48.6 | (16) | 48.5 |
| TOTALS | 103 | 100.0 | 29 | 99.9 | 96 | 100.0 | 33 | 100.0 | 92 | 100.0 | 27 | 99.9 | 104 | 100.0 | 34 | 100.0 | 107 | 100.0 | 33 | 100.0 |

On the basis of the data presented in Table 18 it would seem that so far as decreasing the probability of "doing poorly in school" is concerned: (a) the most effective punisher is "simple talk", (b) punishments administered by peers and by siblings appear to be least effective, (e) the least effective combinations of punishers and person is, (1) father "talking to teachers, principal or counselor", (2) siblings engaging in "simple talk".

Moving next to the variable "frequency of punishment", Table 19 indicates that compared with low ability group members, a larger percentage of high ability group members report that their mothers, siblings and peers pair the things listed in Table 18 with poor school work "every time" they observe that the students work in school is indeed poor. In the case of peers, the percentage difference between high and low ability group responses is 33.0%. In the case of mother and siblings respectively the percentage difference is about 15.0%.

On the basis of data presented in Table 19 it would appear reasonable to conclude that frequency of punishment is related to school work and so to recruitment to low or high ability groups. Furthermore, whereas the punishers administered by sibs and peers are relatively ineffective compared with the administration of the same punishers by other persons the frequency with which they do administer the punishers which they do control increases their relative importance as stimulus persons. Will the same conclusions obtain in the case where students are neither rewarded for doing well in school, nor punished for doing poorly in school, but simply ignored when they behave in either way?

--- Table 19 here ---

Data presented in Table 20 indicates that, compared with high ability group members, a larger percentage of low ability group members report that teachers and siblings simply ignore their good efforts at school. In the case of siblings and teachers, the percentage differences between ability groups are, respectively, 44.0% and 27.0%. Focusing next on the response of various others to the student's poor school performance we find that, compared with the high ability group, a larger percentage of low ability group members report that siblings, peers and teachers simply ignore their poor performance at school. The percentage differences between the two groups are, for siblings 46.8%, for peers 11.4% and for teachers 15.9%. Note however that a larger percentage of students in the high ability group report that their fathers ignore poor school performance. The percentage difference here is 15.9%.

--- Table 20 here ---

On the basis of the data presented in Table 20 it would seem that so far as increasing the probability of doing well in school, ignoring the behaviour appears to be less effective than providing some type of reward. In this latter connection, the rewards provided by siblings and teachers are most effective. So far as decreasing the probability of doing poorly in school is concerned, a dual pattern emerges. The lack of acknowledgement of the behaviour in question by siblings, peers and teachers does not appear to be effective. However, the same response by father does appear to decrease the probability of doing poorly in school --- one of the major criteria in assignment of students to ability groups.

Imitation Paradign

Theoretical preamble: In the reinforcement approach to behavioural modification (presented in the preceding pages) the value and frequency of direct reinforcement of punishment was conceived of as being strategic to the process of learning. Thus, a student behaves in a certain way (e.g. doing poorly in school) and he is punished by parents, peers and so on. In contra-diction to this emphasis, imitation theorists believe that learning takes place even in the absence of direct-reinforcement. In the first place, people learn how to do something simply by observing other people doing the thing in question. The concept of Observational learning refers to this process. Secondly, the probability that a certain type of behaviour will actually be emitted is not exclusively a function of direct reinforcement. Thus the probability that a student will behave in a certain way (e.g. study for x number of hours) may be a function of the fact that he has, in the past, observed other students(models) being rewarded for "studying x number of hours". The concept of vicarious reinforcement refers to this process --- a process in which the student through empathy or imaginative participation, experiences the experiences of another*. For the imitation theorists then, the awareness of response consequences to the model (vicarious reinforcement) is as important as direct reinforcement for the prediction and social control of behaviour - including the achievement behaviour of students.

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*Vicarious here is used in its substitutionary sense. See Webster's Dictionary.

Table 20: Ability Groups By Presence or Absence of Rewards & Punishments Administered By Various Others for Doing Well & Poorly in School, Respectively

| | | FATHER | | | | MOTHER | | | | SIBLINGS | | | | PEERS | | | | TEACHERS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | HAG | | LAG | | HAG | | LAG | | HAG | | LAG | | HAG | | LAG | | HAG | | LAG | |
| | | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % | n | % |
| REWARD | a.* | | | | | | | | | | | | | | | | | | | | |
| | 1. Do nothing | (100) | 95.2 | (26) | 86.7 | (107) | 97.3 | (31) | 88.6 | (31) | 30.1 | (20) | 74.1 | (62) | 56.4 | (18) | 53.0 | (65) | 59.1 | (31) | 86.1 |
| | 2. Do something | (5) | 4.8 | (4) | 13.3 | (3) | 2.7 | (4) | 11.4 | (72) | 69.9 | (7) | 25.9 | (48) | 43.6 | (16) | 47.0 | (45) | 40.9 | (5) | 13.9 |
| | Sub totals | 105 | 100.0 | 30 | 100.0 | 110 | 100.0 | 35 | 100.0 | 103 | 100.0 | 27 | 100.0 | 110 | 100.0 | 34 | 100.0 | 110 | 100.0 | 36 | 100.0 |
| PUNISHMENT | b. | | | | | | | | | | | | | | | | | | | | |
| | 1. Do nothing | (98) | 93.3 | (24) | 77.4 | (100) | 90.9 | (33) | 97.0 | (29) | 28.2 | (21) | 75.0 | (45) | 40.0 | (18) | 51.4 | (80) | 72.7 | (31) | 88.6 |
| | 2. Do something | (7) | 6.7 | (7) | 22.6 | (10) | 9.1 | (1) | 3.0 | (74) | 71.8 | (7) | 25.0 | (65) | 60.0 | (17) | 48.6 | (30) | 27.3 | (4) | 11.4 |
| | Sub totals | 105 | 100.0 | 31 | 100.0 | 110 | 100.0 | 34 | 100.0 | 103 | 100.0 | 28 | 100.0 | 110 | 100.0 | 35 | 100.0 | 110 | 100.0 | 35 | 100.0 |

a = response to "well in school"

b = response to "poorly in school"

Certain imitation theorist also make a distinction between learning and performance. While learning may take place in the absence of rewards, variations in performance are largely a function of differential reinforcement. These analytical distinctions are held to retain their utility even though, in the actual process of socialization, "social behaviour patterns are most rapidly acquired through the combined influence of models and differential reinforcement"[8] Assuming that the model(s) one imitates have high status and prestige, then, in addition to any rewards administered to the model, or rewards administered to the observer emitting "matching behaviour" by the model, ones imitative behaviour is also likely to be followed by the conferral of high status and prestige by others. We now turn to an examination of the data in terms of this theoretical scheme.

As role models in the area of formal education, the parents of high and low ability group members vary in their attainment levels. Data presented in Table 21 show that, compared with low ability groups members, a far larger percentage of students in the high ability group reported that their fathers and mothers had either completed college or gone on to graduate or professional school. The percentage difference between the two groups is, for father is 57.0% and for mothers, 37.0%. In the case of siblings who have left school a similar finding obtains. Table 22 shows that the pattern is no different for siblings still in school. The percentage difference here is about 19.0%.

--- Table 21 Here ---
--- Table 22 Here ---

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[8] Bandura, A. Walters R. Social Learning and Personality Development, New York: Holt, Rhinehart and Winston, 1964, p. 5. A more complete statement of the imitation approach to social behaviour is also presented in this book.

## Table 21: Ability Groups By Educational Attainment of Parents

| Q. How far did your parents & brothers & sisters go in school? | FATHER | | | | MOTHER | | | | SIBLINGS | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | HAG | | LAG | | HAG | | LAG | | HAG | | LAG | |
| | n | % | n | % | n | % | n | % | n | % | n | %* |
| 1. Some high school | (8) | 7.5 | (7) | 29.2 | (4) | 3.8 | (13) | 39.4 | (3) | - | (8) | - |
| 2. High school graduate | (13) | 12.3 | (5) | 20.8 | (15) | 14.3 | (11) | 33.3 | (3) | - | (3) | - |
| 3. Some college | (7) | 6.6 | (8) | 33.3 | (26) | 24.8 | (4) | 12.1 | (6) | - | (5) | - |
| 4. College (4 years) graduate | (24) | 22.6 | (4) | 16.6 | (40) | 38.1 | (4) | 12.1 | (7) | - | (1) | - |
| 5. Attended graduate or prof. school | (54) | 51.0 | (0) | 0.0 | (20) | 19.0 | (0) | 0.0 | (0) | - | (0) | - |
| Totals | 106 | 100.0 | 24 | 99.9 | 105 | 100.0 | 33 | 99.9 | 19 | - | 17 | - |

* Too few cases to compute percentage

Table 22: Ability Groups By Educational Attainment of Siblings

| Q. If you have one older brother or sister who is still in school, how far has each of them gone? | SIBLINGS | | | |
|---|---|---|---|---|
| | HAG | | LAG | |
| | n | % | n | % |
| 1. Junior high school | (5) | 7.4 | (4) | 16.6 |
| 2. High school | (36) | 53.0 | (15) | 62.5 |
| 3. Technical or business school | (0) | 0.0 | (0) | 0.0 |
| 4. College | (23) | 33.8 | (4) | 16.6 |
| 5. Graduate or professional school | (4) | 5.8 | (1) | 4.2 |
| Totals | 68 | 100.0 | 24 | 99.9 |

On the basis of these tables then we may conclude that in terms of exposure to family role models, members of high and low ability groups experience differential exposure to behaviours leading to high level of educational attainment. However, students also learn from peers, and if the peers of low ability group members are high achievers, observational learning from peers may make up for routine exposure in the home, to behaviour which led to low educational rank among siblings. Data presented in Table 23 indicates that the behaviour of friends does not operate as a compensatory factor. Among members of the low ability groups, 67.6% report that their friends had left school before completing high school. This compares with 27.5% for the high ability group --- a percentage difference of 40.1%.

--- Table 23 Here ---

Now, to the extent that our primary concern is with behaviour (performance) we cannot rest content with simple assertions concerning the differential behaviour of role models to which high and low ability group members respectively have been exposed. In the imitation paradign, observed consequences to the model is one important variable influencing the frequency, intensity, and range of observer responses. Our next step must be to determine the degree to which students are in fact aware of the contingencies attached to the educational attainments of their parents, peers and friends. Table 24 contains data pertinent to this question.

--- Table 24 Here ---

Data presented in the preceding table show firstly, that in the case of siblings, over one half of the low ability group students reported a lack of awareness of the contingencies attached to various levels of

Table 23: Ability Groups By Educational Attainment of Siblings

| Q. Do you have any friends who quit school before they finished high school? | High Ability n | High Ability % | Low Ability n | Low Ability % |
|---|---|---|---|---|
| 1. Yes | (30) | 27.5 | (23) | 67.6 |
| 2. No | (79) | 72.3 | (11) | 32.3 |
| Totals | 109 | 99.8 | 34 | 99.9 |

Table 24: Ability Groups By Awareness of Consequences Attached to Educational Attainment by Siblings and Peers

| Q. Has leaving school early hindered your brothers & sisters or friends from getting a good job or being a good wife or mother? | SIBLINGS | | PEERS (Friends) | |
|---|---|---|---|---|
| | HAG | LAG | HAG | LAG |
| 1. Yes | 9 | 9 | 17 | 8* |
| 2. No | 7 | 2 | 6 | 7 |
| 3. Don't know | 5 | 12 | 9 | 8 |
| Totals | 21 | 23 | 32 | 23 |

* Too few cases to compute meaningful percentages

educational attainment. Only one quarter of the high ability group members reported a similar lack of awareness. Secondly, in the case of friends, levels of awareness were similar for both groups, but whereas over half of the members in the high ability group reported that their friends could have obtained a better job if they had continued their schooling, only one third of the low ability group students responded in the same way. These findings enable one to arrive at the conclusion that differential awareness of the contingencies attached to low educational attainment of specified models might be related to differential recruitment to high and low ability groups.

In connection with this conclusion it is interesting to note that whereas students in high and low ability groups differ in their awareness of response consequences to models, they have somewhat similar levels of awareness of the consequences for their own occupational recruitment, of both "good grades" and "staying longer in school". On the basis of a comparison between two sets of data, response-consequences-to-models data, presented in Table 24 and response consequences-to-self-data, presented in Table 25 we can only conclude, tentatively, that the former sets of consequences are more strongly related to differential recruitment to ability groups than are long run response contingencies to self. Note, however, that a similar awareness of response contingencies to self does not mean that the perceived consequences to self can be changed by changing one's behaviour. Thus, whereas 94.5% (103) of the high ability group believes that good grades are a function of "Hard work", 77.7% (28) of low ability group members perceive a similar relation between amount of work and quality of grade obtained. Of the remaining members of the low ability group, 8.3% (3) believe that grades are not related to hard work, and 13.9% (5) simply don't know what the relation between these two variables is. Of the remaining high ability group members, 1.8% (2) were not aware of the relationship between work and grades and 3.6% (4) replied that work was not related to grades.

Having presented data pertinent to each of the three theoretical approaches, we now turn to a set of tables which have generalized relevance for all three paradigms. The source of these generalized relvance inheres in the fact that the data presented in the following sub-sections provide answers to the question: are there important differences in the expectations of the various others with whom students interact, if these expectations conflict, which of the various others have greater stimulus value, and finally, do these differences discriminate high from low ability group members.

Expectations of Relevant Others and Performance at School

As we have indicated, grades constitute one of the major criteria in assigning students to ability groups. The importance of this criterion is also reflected in the self-reports of students. Thus Table 25 shows that while 14.8% (77) of the members of the high ability group report a grade of B or higher, only 17.1% of students in the low ability groups respond in the same way.

--- Table 25 Here ---

Data presented in Table 25 leads one to the following, relatively firm conclusion: high and low ability group members may be reliably differentiated on the basis of academic performance.* Can we also reliably

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*Of course, this is what we would expect as grade average is a major criterion in assigning individuals to ability groups. Our point here is that self reports of students represent closely correspond to teacher reports.

Table 25: Ability Groupings By Grades

| | High Ability | | Low Ability | |
|---|---|---|---|---|
| | n | % | n | % |
| 1. A average | (22) | 21.4 | (0) | 0.0 |
| 2. B average | (55) | 53.4 | (6) | 17.1 |
| 3. C average | (19) | 18.4 | (17) | 48.6 |
| 4. D average | (2) | 1.9 | (6) | 17.1 |
| 5. Don't know | (5) | 4.9 | (6) | 17.1 |
| Totals | 103 | 100.0 | 35 | 99.9 |

discriminate between members of the two groups on the basis of parental and teacher expectations in relation to actual performance?

--- Table 26 Here ---

Focusing first on parents, Table 26 shows that in relation to observed performance, the expections of parents of high ability groups members are somewhat higher than are the expectations of parents whose children are members of the low ability group. Thus, of the 108 high ability group members, 35.2% (38) reported that their grades were lower than their parents expected them to be. This compares with 19.4% (7) of the low ability group members who responded in the same way. This finding must be interpreted against the following background data: The average grade of the high ability group is higher than the average grade of the low ability group to begin with.

A somewhat similar pattern emerges in the case of teacher expectations regarding grade averages. Thus, Table 27 shows that compared with low ability group members, a higher percentage of students in the high ability group reported that their grade averages were lower than their teachers expected them to be. The percentage difference here is 13.0%. On the basis of the data presented in Tables 27 and 27, it would seem that parental and teacher expectations of poor performance are roughly correlated with actual poor performance by students.[9] Does the same sort of relation hold when the dependent variable is not academic performance in school, but rather the level of schooling the students himself expects to attain?

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[9] Rosenthal. R. Pygmalion in the Classroom New York: Academic Press, 1968. In this, his most recent book, Rosenthal presents much of his work on the positive relation between teacher expectancies and education outcomes.

Table 26: Percental Expectations and Grade Averages By Ability Groups

| Q. Is your grade average higher or lower than what your parents expect it to be? | High Ability n | High Ability % | Low Ability n | Low Ability % |
|---|---|---|---|---|
| 1. Higher | (9) | 8.3 | (8) | 22.2 |
| 2. The same | (51) | 47.2 | (9) | 25.0 |
| 3. Lower | (38) | 35.2 | (7) | 19.4 |
| 4. Don't know | (10) | 9.3 | (12) | 33.3 |
| Totals | 108 | 100.0 | 36 | 100.0 |

Table 27: Teacher Expectations and Grade Averages By Ability Groupings

| Q. Is your grade average this year as high as, lower or the same as your teachers expect it to be? | High Ability n | % | Low Ability n | % |
|---|---|---|---|---|
| 1. Higher | (4) | 3.7 | (7) | 19.4 |
| 2. The same | (40) | 37.0 | (10) | 27.7 |
| 3. Lower | (29) | 26.8 | (5) | 13.8 |
| 4. Don't know | (35) | 32.4 | (14) | 38.8 |
| Totals | 108 | 99.9 | 36 | 99.7 |

--- Table 27 Here ---

Glancing at Table 28, one discovers firstly that for both groups, the self-expectations of students are much more consistent with the expectations of their fathers than they are with those of any single other listed. In terms of degree of consistency in expectations of students and others, siblings came next, followed by teachers. Secondly, for the two sets of inconsistent expectations (sibs-self and teachers-self) the direction of the inconsistency is as follows: Compared with the low ability groups a higher percentage of students in the high ability group report that the expectations of their siblings are below their own. Thus, while 66.3% (67) of the high ability group members report that their sibs expect them to complete college or graduate school, 81.1% (86) of the students themselves respond in the same way -- a difference of almost 14.0%. For low ability group members, expectations of sibs and students for the same level of education (i.e. college or graduate school), falls under our heading of "rough equivalence". Focusing next on consistency between teacher-self expectations, we replicate the finding of a dual pattern for low and high ability group members respectively. For low ability group members there exists a moderately high reported consistency between teach and self-expectations regarding completion of college or graduate school. This is certainly not true for teacher and self expectations of high ability group students. Thus, 42.0% of students in the high ability group report that their teachers expect them to complete college or graduate school. This compares with 81.1% of students in the same group who respond in the same way --- a percentage difference of 38.5%.

Table 28: Consistency Between Self - Others Expectations of Educational Attainment By Ability Groups

| Q. How much schooling do you think each of the following persons thinks you will finish? | | Don't Know | | Not Finish High School | | Finish High School Only | | Technical School or Some College | | College (4 Years) or Grad. Sch. | | Totals | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | HAG | LAG | HAG | LAG | HAG | LAG | HAG | LAG | HAG | LAG | HAG | LAG |
| 1. Father | n | (11) | (5) | (0) | (3) | (0) | (4) | (5) | (11) | (87) | (9) | 103 | 32 |
| | % | 10.7 | 15.6 | 0.0 | 9.4 | 0.0 | 12.5 | 4.8 | 34.4 | 84.5 | 28.1 | 100.0 | 100.0 |
| 2. Siblings | n | (27) | (8) | (0) | (2) | (1) | (6) | (6) | (3) | (67) | (10) | 101 | 29 |
| | % | 26.7 | 27.6 | 0.0 | 6.9 | 0.9 | 20.7 | 5.9 | 10.3 | 66.3 | 34.4 | 99.8 | 99.9 |
| 3. Teachers | n | (54) | (11) | (1) | (3) | (2) | (9) | (5) | (3) | (46) | (9) | 108 | 35 |
| | % | 50.0 | 31.4 | 0.9 | 8.5 | 1.8 | 25.7 | 4.6 | 8.5 | 42.6 | 25.7 | 99.9 | 99.8 |
| 4. Self | n | (7) | (2) | (1) | (4) | (2) | (8) | (10) | (12) | (86) | (10) | 106 | 36 |
| | % | 6.6 | 5.5 | 0.9 | 11.1 | 1.9 | 22.2 | 9.4 | 33.3 | 81.1 | 27.8 | 99.9 | 99.9 |
| Totals | n | (99) | (26) | (2) | (12) | (5) | (27) | (26) | (29) | (286) | (38) | 418 | 132 |
| | % | 23.7 | 19.7 | 0.5 | 9.1 | 1.2 | 20.4 | 6.2 | 21.9 | 68.4 | 28.8 | 100.0 | 99.9 |

Table 29: Ability Groups By Relative Knowledge of Parents and Teachers

| Q. 95 Do you feel that many times your parents know as much as your teachers? | High Ability n | High Ability % | Low Ability n | Low Ability % |
|---|---|---|---|---|
| 1. Yes | (67) | 60.9 | (12) | 34.3 |
| 2. No | (30) | 27.3 | (12) | 34.3 |
| 3. Don't know | (13) | 11.8 | (11) | 31.4 |
| Totals | 110 | 100.0 | 35 | 100.0 |

Table 30: Ability Groups By Relative Influence of Parents and Teachers

| Q. If told to do different things by your teacher and your parents what would you do? | High Ability Group n | High Ability Group % | Low Ability Group n | Low Ability Group % |
|---|---|---|---|---|
| 1. Do what my teacher tells me to do | (4) | 3.8 | (4) | 11.8 |
| 2. Do what my parents tell me to do | (32) | 30.5 | (9) | 26.5 |
| 3. Try to do both | (42) | 40.0 | (13) | 38.2 |
| 4. Don't know | (27) | 25.7 | (8) | 23.5 |
| Totals | 105 | 100.0 | 34 | 100.0 |

The third and final point we wish to make in connection with this table is that moderately high percentage of students in both ability groups simply do not know what level of education their teachers expect them to attain. The relationship between this lack of knowledge and any performance or endurance (length of exposure to formal educational processes) is certainly problematic because a larger percentage of high ability group members who presumably score higher on both performance and endurance also lack this information.

--- Table 28 Here ---

To the extent that the student is exposed to experiences conflicting demands concerning his behaviour the question may arise as to how this conflict is resolved. One element which might enter into the process of conflict resolution might be, variations in the perceived expertise of various others. Table 29 indicates that compared with the low ability group, a larger percentage of high ability group members report that their parents "know as much as their teachers". The percentage difference here is almost 35.0%.

Focusing next on Table 30, we find that variations in perceived expertise does not appear to be related to the process of conflict resolution. Thus, assuming that such resolutions would be in the direction of the person with perceived higher generalized expertise we would also expect a larger percentage of high ability group students to resolve the conflict by "doing what my parents tell me". Such a finding does not appear in Table 30. Rough equivalence also characterizes the distribution of responses within each ability group when members of each group are asked how they would respond if teacher and friend demands were in conflict. (Table 31).

Table 31: Ability Groups By Relative Influence of Teachers and Friends

| Q. If told to do different things by your teacher and your friends, what would you do? | High Ability n | High Ability % | Low Ability n | Low Ability % |
|---|---|---|---|---|
| 1. Do what my teacher tells me to do | (40) | 38.5 | (16) | 48.5 |
| 2. Do what my friends tell me to do | (9) | 8.6 | (0) | 0.0 |
| 3. Try to do both | (26) | 25.0 | (7) | 21.2 |
| 4. Don't know | (29) | 27.9 | (10) | 30.3 |
| Totals | 104 | 100.0 | 33 | 100.0 |

--- Table 30 Here ---

--- Table 31 Here ---

Finally, if we broaden our concept of attainment to include behaviours and goals other than those which are primarily academic, and if we then compare the wishes of various relevant others regarding these types of attainment vis-a-versus their children and the wishes of the children themselves (Table 32) the following finding emerge.

--- Table 32 Here ---

So far as being a "good student" is concerned, there exists a fairly high degree of consistency between the reported wishes of father, mother, sibs, and friends on the one hand, and the wishes of low ability group students, on the other. This is certainly not true for high ability group students. For the latter group, a dual pattern is depicted in the Table. Compared with the reported wants of parents, a smaller percentage report that they themselves want to be good students. The percentage difference for fathers versus sons wishes is 24.6%, and 19.2% for mother's wishes versus son's wishes. Compared with the reported wishes of friends, a higher percentage report that they themselves want to be good students. The percentage difference for friends versus self wishes is about 13.0%. For sibs versus self wishes rough equivalence obtains.

Moving next to "good athlete" we find a pattern almost dramatrically opposed to that which obtained for "good student". For the "good athlete" category we find moderately high consistency between the current wishes of parents, sibs, and friends on the one hand, and sibs wishes on the other. For low ability a dual pattern is apparent. Compared with the reported

Table 32: Consistency Between Self - Others Wishes Regarding Various Types of Attainment By Ability Groupings

| Q. What does each of the following persons want you to know? | | Don't Know | | Good Student | | Good Athlete | | Popular With Peers | | Obtain a Good job | | Obedient to Teachers & Parents | | Belong to School Clubs & Orgs. | | Totals | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | HAG | LAG | HAG | LAG | HAG | LAG | HAG | LAG | HAG | LAG | HAG | LAG | HAG | LAG | HAG | LAG |
| 1. Father | n | (18) | (5) | (62) | (13) | (3) | (5) | (2) | (1) | (1) | (2) | (5) | (5) | (0) | (0) | 91 | 31 |
| | % | 19.8 | 16.1 | 68.1 | 41.9 | 3.3 | 16.1 | 2.2 | 3.2 | 1.1 | 6.5 | 5.5 | 16.1 | 0.0 | 0.0 | 100.0 | 99.9 |
| 2. Mother | n | (18) | (4) | (59) | (15) | (3) | (2) | (3) | (0) | (3) | (6) | (7) | (6) | (1) | (0) | 94 | 33 |
| | % | 19.1 | 12.1 | 62.7 | 45.4 | 3.2 | 6.0 | 3.2 | 0.0 | 3.2 | 18.2 | 7.4 | 18.2 | 1.1 | 0.0 | 99.9 | 99.9 |
| 3. Siblings | n | (16) | (0) | (35) | (11) | (8) | (9) | (24) | (0) | (4) | (5) | (3) | (1) | (2) | (1) | 92 | 27 |
| | % | 17.4 | 0.0 | 38.0 | 40.7 | 8.7 | 33.3 | 26.1 | 0.0 | 4.3 | 18.5 | 3.3 | 3.7 | 2.2 | 3.7 | 100.0 | 99.9 |
| 4. Friends | n | (8) | (1) | (31) | (14) | (9) | (10) | (48) | (4) | (1) | (4) | (1) | (2) | (3) | (0) | 101 | 35 |
| | % | 8.0 | 2.8 | 30.7 | 40.0 | 8.9 | 28.6 | 47.5 | 11.4 | 0.9 | 11.4 | 0.9 | 5.7 | 3.0 | 0.0 | 99.9 | 99.9 |
| 5. Self | n | (4) | (0) | (40) | (15) | (8) | (8) | (31) | (5) | (3) | (5) | (5) | (1) | (1) | (1) | 92 | 35 |
| | % | 4.3 | 0.0 | 43.5 | 42.8 | 8.7 | 22.8 | 33.7 | 14.3 | 3.3 | 14.3 | 5.4 | 2.9 | 1.1 | 2.9 | 100.0 | 100.0 |

wishes of parents a higher percentage of students report that themselves want to be good athletes. Compared with the reported wishes of sibling and friends, a smaller percentage of low ability group students report that they themselves want to be good athletes.

Focusing next on the "popular with peers" category we find that for the low ability group only the responded wants of friends and self are consistent. In the case of high ability group members only the reported wishes of sibs and self are roughly equivalent. Compared with the reported wishes of parents a higher percentage of students report that they themselves want to be good students. The percentage difference here is 31.5% for fathers and self wishes, and 30.5% for mothers and self wishes. Compared with the reported wishes of friends, a smaller percentage of students report that they want to be good students. The percentage difference for friends and self wishes is 13.8%.

In the case of "obtaining a good job" rough equivalence obtains between the reported wishes of self and all others, for both high and low ability groups. This finding also obtains for "obedient to teacher" but only for high ability group members. For low ability group members a dual pattern obtains. While the reported wants of sibs, friends, and self are roughly equivalent, the reported wishes of parents and self are not. Compared with the reported wishes of parents, a smaller percentage of low ability group members report that they themselves want to be obedient to teachers and parents.

Finally, in the case of "belonging to school clubs and organizations" consistency characterizes the relation between the reported wishes of self and all others, for both high and low ability groups.

In addition to providing consistency data, Table 32 also enables us to get at between-group differences in the reported wishes of various others vis-a-vis the student. The fathers of more members of both groups apparently want their children to be good students rather than any of the other types of specified attainments. Compared with low ability group members, a higher percentage of high ability group members report that their fathers want them to be good students. The same finding obtains in the case of wishes of mother.

Compared with the wishes of parents, the reported wishes of siblings are much evenly divided between a variety of types of attainment. More members of both high and low ability groups report that their brother and sisters want them to be good students. Beyond this, there are relatively large between group differences in reported wishes of various others. Compared with the high ability group, a larger percentage of low ability group members report that their brothers and sisters want them to be "good athletes". The percentage difference here is 24.6%. Although the percentage difference is smaller, (14.2%) a similar finding obtains in the case of "obtaining a good job". Focusing now on high ability group members, we find that compared with students in the low ability group, a larger percentage of members in the former group report that their sibs want them to be "popular with others". The percentage difference here is 26.1%. Note too that a larger percentage of high ability group members report that they simply do not know what their sibs wnat them to be.

Like the wishes of sibs, the reported wishes of friends are more evenly distributed among types of attainment. So far as being a "good student" is concerned, rough equivalence obtains between the responses by members of both groups. In the case of being a "good athlete", a larger percentage of low ability group members report that their friends want them to be "good athletes". The percentage difference here is about 20.0%. Finally, compared with the low ability group, a larger percentage of high ability group members report that their friends want them to be "popular with others". The percentage difference for this type of social attainment is 36.1%.

On the basis of data presented in this sub-section we arrive at the following tentative conclusions:

(a) parents of low ability group students tend to expect their children to attain a level of academic performance somewhat lower than the levels actually attained.

(b) teachers of low ability group students tend to expect low ability group students to perform at levels somewhat lower than those actually recorded.

(c) regarding the level of schooling the students or others think they will attain, there is greater consistency between the expectations of father and student than there is between student and any other person listed this finding applies to both high and low ability groups.

(d) a moderately high percentage of students in both ability groups simply do not know the expectations of teachers regarding their completion of or continuance past high school.

(e) most parents tend to want their children to be "good students" and most students tend to want to be "good students".

(f) most sibs want their brothers and sisters to be good students and most of the students themselves want to be good students.

Talbe 33: Frequency of Interaction By Racial (Ability) Groups

| Q. During the school year about how much time do you spend: | | NONE | | Small Amount of Time | | Half or Most of the Time | | Totals | |
|---|---|---|---|---|---|---|---|---|---|
| | | HAG | LAG | HAG | LAG | HAG | LAG | HAG | LAG |
| 1. Talking to friends | n | (1) | (5) | (27) | (10) | (78) | (21) | 106 | 36 |
| | % | 0.9 | 13.9 | 25.5 | 27.8 | 73.6 | 58.3 | 100.0 | 100.0 |
| 2. Talking to persons of a different race | n | (8) | (7) | (65) | (9) | (31) | (20) | 104 | 36 |
| | % | 7.6 | 19.4 | 62.6 | 25.0 | 29.8 | 55.6 | 100.0 | 99.9 |
| 3. At home, in company with at least one parent | n | (3) | (10) | (6) | (8) | (98) | (17) | 107 | 35 |
| | % | 2.8 | 28.6 | 5.6 | 22.9 | 91.6 | 48.6 | 100.0 | 100.0 |
| Totals | n | 12 | 22 | 98 | 27 | 207 | 58 | 317 | 107 |
| | % | 3.8 | 20.6 | 30.9 | 25.2 | 65.3 | 54.2 | 100.0 | 100.0 |

(g) most of the friends of low ability group students want the students to be good students and the students themselves want to be "good students."

(h) most of the friends of high ability group students want their friends to be "popular with others" while most of the high ability group students themselves want to be good students.

## Inter-Racial Interaction in an Educational Setting

The reader will recall that about 40.0% (43) of the students sampled in the eighth grade are Negro. Of the 43 Negro students, approximately 80.0% (36) are in the low ability group. Of the 110 members in the high ability group, about 6.0% (7) are Negroes. When frequency of interaction is our dependent variable and we compare ability groups in terms of this variable we are, for all practical purposes, comparing two different racial groups. The results of this comparison are presented in Table 33.

--- Table 33 Here ---

If one focuses first on the overall totals, it soon becomes that low ability group members tend to interact with others less frequently than do students in the high ability group. Focusing next on data presented within the table one discovers that the marginal totals an important difference in the direction of interaction between the two groups. Thus, a higher percentage of high ability group members interact "half or most of the time" with friends of the same race (74% to 59%) or family members (92% to 49%) a higher percentage of low ability group members spend "half or most of the time" interacting with friends of a race different from their own, (56% to 30%).

Table 34: The Perceived Relation Between Academic Performance And Friendship By Racial (Ability) Groups

| | | HAG | | LAG | |
|---|---|---|---|---|---|
| | | n | % | n | % |
| 1. Students (white) | YES | (21) | 21.2 | (14) | 38.9 |
| | NO | (50) | 50.5 | (8) | 22.2 |
| | DON'T KNOW | (28) | 28.2 | (14) | 38.9 |
| | | 99 | 100.0 | 36 | 100.0 |
| 2. Students (black) | YES | (10) | 9.4 | (9) | 29.0 |
| | NO | (61) | 57.5 | (9) | 29.0 |
| | DON'T KNOW | (35) | 33.0 | (13) | 42.0 |
| | | 106 | 99.9 | 31 | 100.0 |
| 3. Teachers (white) | YES | (37) | 35.2 | (12) | 34.3 |
| | NO | (41) | 39.0 | (10) | 28.6 |
| | DON'T KNOW | (27) | 25.7 | (13) | 37.1 |
| | | 105 | 99.9 | 35 | 100.0 |
| 4. Teachers (black) | YES | (30) | 28.0 | (14) | 42.4 |
| | NO | (44) | 41.1 | (13) | 39.3 |
| | DON'T KNOW | (33) | 30.8 | (6) | 18.2 |
| | | 107 | 99.9 | 33 | 99.9 |
| Sub totals (1-4) | YES | (98) | 23.5 | (49) | 36.3 |
| | NO | (196) | 47.0 | (40) | 29.6 |
| | DON'T KNOW | (123) | 29.5 | (46) | 30.1 |
| TOTALS | | 417 | 100.0 | 135 | 100.0 |

Focusing next on the relationship between academic performance and friendship patterns we ask the question: To what extent do students believe that improving the probability of changing relations between persons of another race in the direction of greater friendship? An examination of the marginal sub-totals presented in Table 34 show that a larger percentage of low ability students report that being a better student" will increase the probability of more friendly relations with others. The percentage difference here is about 16.0%. Equally important of course, is the fact that high ability (largely white) students do not share this belief.

--- Table 34 Here ---

Focusing next on the specific items within the table we find that in terms of percent responding with a "no", more members of the high ability group feel that "being a better student" will not improve their relation with black students.

Glancing at the specific relationship depicted in the table we find that students differ in the degree to which they believe that friendly relations with the specific others listed, will be influenced by changes in their own academic behaviour. Taking high ability group students first, 57.5% believe that black students, 50.5% believe that white students, 41.1% believe that black teachers and 39.0% believe that white teachers will not respond with increased friendship to improvements in academic performance. When the criterion of equivalence is applied it is found to obtain only for white teachers. Stated positively, one might say that, the number of students who believe that better academic performance will make teachers more friendly is approximately equal to the number of students who do not believe this.

Among the low ability group, 42.4% believe that black teachers, 38.9% believe that white students, 34.3% believe that white teachers and 29.0% believe that black students will become more friendly if their academic performance improves. When the criterion of rough equivalence is applied however, it is found not to obtain only for white teachers. Stated positively we might say that whereas 22.2% of low ability group members felt that being a better student would not make white teachers more friendly, 38.9% reported that better students behaviour would make teachers respond in a more friendly manner.

On the basis of data presented in Table 34, we learned that compared with white (HAG) students, a larger percentage of black (LAG) students believed that white students, black students, and black teachers would become more friendly if they, i.e. the black students, became better students. We also learned that compared with black (LAG) students, a larger percentage of high ability group believed that white students, black students and white teachers would not respond with increased friendliness to an improvement in academic performance. If black and white, low and high, ability groups vary in terms of the perceived probability of a friendly response from others, do they also vary in terms of the perceived trust-worthiness and fairness of others?

Table 35 shows that the overall differences in perceived trustworthiness of various others by high and low ability group members is roughly equivalent, 66.6% versus 60.6%. These marginal values do however mask certain within-table differences. Thus, we find that compared with the low ability group, a higher percentage of high ability group students report that they trust their teachers. For white teachers the percentage difference is 12.2%

Table 35: Perceived Trustworthiness of Negro and White Peers, and Negro White Teachers By Racial (Ability) Groups

| Q. Do you feel you can trust: | | YES | | NO | | DON'T KNOW | | TOTALS | |
|---|---|---|---|---|---|---|---|---|---|
| | | HAG | LAG | HAG | LAG | HAG | LAG | HAG | LAG |
| 1. Most of your teachers who are white | n | (89) | (25) | (9) | (4) | (11) | (7) | 109 | 36 |
| | % | 81.6 | 69.4 | 8.3 | 11.1 | 10.1 | 19.4 | 100.0 | 99.9 |
| 2. Most of your teachers who are black | n | (88) | (23) | (10) | (5) | (10) | (8) | 108 | 36 |
| | % | 81.4 | 63.9 | 9.3 | 13.9 | 9.2 | 22.2 | 99.9 | 100.0 |
| 3. Most of the students who are white | n | (71) | (20) | (22) | (6) | (14) | (9) | 107 | 35 |
| | % | 66.4 | 57.1 | 20.5 | 17.1 | 13.1 | 25.7 | 100.0 | 99.9 |
| 4. Most of the students who are black | n | (39) | (18) | (44) | (9) | (24) | (8) | 107 | 35 |
| | % | 36.4 | 51.4 | 41.1 | 25.7 | 22.4 | 22.9 | 99.9 | 100.0 |
| TOTALS | n | (287) | (86) | (85) | (24) | (59) | (32) | 431 | 142 |
| Percentages | % | 66.6 | 60.6 | 19.7 | 16.9 | 13.7 | 22.5 | 100.0 | 100.0 |

Table 36: Perceived Fairness of Black and White
Teachers By Racial (Ability) Groupings

| Q. Do you feel that most of your: | | YES | | NO | | DON'T KNOW | | TOTALS | |
|---|---|---|---|---|---|---|---|---|---|
| | | HAG | LAG | HAG | LAG | HAG | LAG | HAG | LAG |
| 1. White teachers are fair | n<br>% | (84)<br>77.1 | (21)<br>58.3 | (18)<br>16.5 | (9)<br>25.0 | (7)<br>6.4 | (6)<br>16.6 | 109<br>100.0 | 36<br>99.9 |
| 2. Black teachers are fair | n<br>% | (85)<br>81.0 | (21)<br>60.0 | (11)<br>10.5 | (7)<br>20.0 | (9)<br>8.5 | (7)<br>20.0 | 105<br>100.0 | 35<br>100.0 |
| TOTALS<br>Percentages | n<br>% | (169)<br>79.0 | (42)<br>59.1 | (29)<br>13.5 | (16)<br>22.5 | (16)<br>7.5 | (13)<br>18.3 | 214<br>100.0 | 71<br>99.9 |

and for black teachers 16.5%. Compared with high ability group students, a larger percentage of low ability group students report that they trust their fellow students who are also black. The percentage difference here is 15.6%. A roughly equivalent percentage of students in both high and low ability groups report that they trust their fellow students who are white.

--- Table 35 Here ---

Now a teacher may be trustworthy but unfair (e.g. one can trust another person to discriminate on the basis of colour). A higher percentage of high ability group students not only feel that they can trust their teachers, but also, as Table 36 indicates, that their teachers are fair. For white teachers the percentage difference is 18.8%, and for black teachers, 19.0%.

--- Table 36 Here ---

In summarizing the data presented in this sub-section, the following conclusions seem important enough to repeat:

(a) compared with white high ability group studnets, members of the (black) low ability group tend to interact with others frequently.

(b) compared with white (HAG) students a larger percentage of black (LAG) students interact with friends of a race other than their own.

(c) compared with white (HAG) students, a larger percentage of black (LAG) students believe that if they become better students, white students, black students and black teachers will become more friendly.

(d) compared with black (LAG) students, a larger percentage of white (HAG) students feel they can trust their black and white teachers.

(e) whereas their is rough equivalence in the amount of trust reposed on white students by both white (HAG) and black (LAG) students, a larger percentage of black (LAG) students report that they can trust black students.

## Part II

### Classroom Behaviour

As we indicated earlier in this chapter, the Behavioural Rating Instrument (Appendix 2) was used to record the behaviour of 18 students, all of whom are members of the low ability group. Because our major interests lay in (a) pretesting the observational instrument, and (2) acquiring systematic knowledge about the actual classroom behaviour of the students we would subsequently be working with, we did not devote tiem, during the final observational period, to observing the classroom behaviour of high ability group members as well.* For this reason, our observational data permit only within-group comparisons of responses, However, one question which does get at classroom behaviour, was included in the questionnaire administered to both high and low ability group students. The responses to this question are contained in Table 37. Focusing first on Disinterested Behaviour we find that the criterion of rough equivalence characterizes the percentage distributions within each group. This criterion will not apply in the case of distraction behaviour. Thus, compared with the high ability group, a larger percentage of members of the low ability group emit this class of behaviour. The percentage difference here is 23.0%. Focusing next on Aggressive Behaviour we observe a pattern almost identical to that which obtained fro Distraction Behaviour. A larger percentage of low ability group students emit aggressive behaviour. The percentage difference is also 23.0%. Finally, compared with the high ability group, a larger percentage of low ability group students emit Disobedient or defiant behaviour. The percentage difference here is 28.6%.

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*Only in the development of the instrument did we not confine our observations to the eighth grade, low ability group students. Indeed, during the developmental phase, we observed the classroom behaviour of students in various grades and both ability groups.

Table 37: Undesirable Classroom Behavior By Ability Groups

| Q. How much time do you spend doing each of these things: | | None or Small Amount of the Time | | Half or Most of the Time | | TOTALS | |
|---|---|---|---|---|---|---|---|
| | | HAG | LAG | HAG | LAG | HAG | LAG |
| 1. Looking out of the window (DISINTERESTED) | n | (80) | (31) | (16) | (5) | 106 | 36 |
| | % | 84.8 | 86.1 | 15.1 | 13.9 | 99.9 | 100.0 |
| 2. Making noises or speaking loudly (DISTRACTION) | n | (89) | (24) | (19) | (11) | 108 | 35 |
| | % | 82.5 | 68.6 | 8.4 | 31.4 | 99.9 | 100.0 |
| 3. Punching or hitting others (AGGRESSION) | n | (103) | (27) | (19) | (11) | 108 | 32 |
| | % | 95.4 | 68.6 | 8.4 | 31.4 | 100.0 | 100.0 |
| 4. Ignoring teacher's requests or demands (DEFIANT) | n | (95) | (21) | (10) | (13) | 105 | 34 |
| | % | 90.4 | 61.8 | 9.6 | 38.2 | 100.0 | 100.0 |

Table 38: Classroom Behaviour of Low Ability
Group Members by Sexual Status

| Behaviour Categories | Males |  | Females |  | Totals |  |
|---|---|---|---|---|---|---|
|  | n | % | n | % | n | % |
| 1. Achievement | (4693) | 53.9 | (3261) | 70.2 | 7954 | 59.5 |
| 2. Disinterested | (2677)) | 30.7 | (924) | 19.9 | 3601 | 27.0 |
| 3. Achievement and Disinterested | (242) | 2.8 | (145) | 3.1 | 387 | 2.9 |
| 4. Distraction | (436) | 5.0 | (95) | 2.0 | 531 | 4.0 |
| 5. Reward | (663) | 7.6 | (217) | 4.7 | 880 | 6.6 |
| Totals | 8711 | 100.0 | 4,642 | 100.0 | 13,353 | 100.0 |

1. The behavioural referents of these categories are listed in Appendix 2

--- Table 37 Here ---

Focusing now on the behaviour of eighteen members of the low ability group, we begin our discussion by noting that the data presented in the tables which follow have been summed to cover the final observational period. Thus, the thirteen thousand, three hundred and thirty-three observations represent all the behaviours of interest to us recorded during the six weeks when the final version of the rating scale was actually used to record behaviour. Appendix 2 contains the specific behaviours to which each of the categories refers. Aggressive behaviour is not included in any of the tables simply because it was not observed frequently enough to warrant inclusion this is an important observation in itself, it is data.

The data presented in Table 39 show that over half, 59.5% of the observed responses of all students consisted of achievement responses. Disinterested behaviour accounted for 27.0% of recorded behaviours. These two classes of responses in the same order were most frequently emitted by both male and female students, except that whereas for girls the percentage difference for Achievement and Disinterested behaviours was about 50.0%, for boys the percentage difference was only 23.9%.

--- Table 38 Here ---

In addition to between-sex differences, between-teacher differences in the distribution of responses was observed, Table 39. Of the 7954 recorded "achievement" behaviours, 60% were emitted while students were being taught by a female, Negro, middle-aged teacher of social studies, i.e. teacher "2". Forty-percent of these behaviours were emitted while being taught by a female, white, young teacher of mathematics, i.e.

Table 39: Classroom Behaviour of Low Ability Group Members

By Teacher Characteristics and Subject Taught

| Behaviour Categories | | [2]Teacher "A" Mathematics | [3]Teacher "B" Social Studies | TOTALS |
|---|---|---|---|---|
| 1. Achievement | n | (3189) | (4765) | 7954 |
| | % | 40.0 | 60.0 | 100.0 |
| 2. Disinterested | n | (1746) | (1855) | 3601 |
| | % | 48.4 | 51.9 | 99.9 |
| 3. Achievement & Disinterested | n | (148) | (239) | 387 |
| | % | 38.2 | 61.8 | 100.0 |
| 4. Distraction | n | (324) | (207) | 531 |
| | % | 61.1 | 38.9 | 100.0 |
| 5. Reward | n | (548) | (332) | 880 |
| | % | 62.3 | 37.7 | 100.0 |

1. The behavioural referents of these categories are listed in Appendix

2. Teacher "A" is female, white and young

3. Teacher "B" is female, black and middle-aged

teacher "1" --- a percentage difference of 20.0%. A similar pattern in the distribution of responses occurs with respect to "achievement and disinterested" behaviour. The percentage difference here is 23.6%, Conversely, a lower percentage of distraction, behaviours are emitted when students are being taught by teacher "2". Finally, a somewhat larger percentage of students engage in such behaviour as "praising, approving, smiling, laughing, hand-signaling or showing non-course materials to other students, when they are being taught by teacher "1".

--- Table 39 Here ---

On the basis of data presented in this sub section, it would seem that:

(a) there are reported differences in the amount of undesirable classroom behaviour emitted by high and low ability group students.

(b) compared with high ability group students, low ability group students are more likely to emit distraction, aggressive and disobedient behaviours.

(c) there is considerable variation in the frequency of aggressive behaviour reported by low ability group students and the amount of aggressive behaviour actually observed being emitted by the allegedly "most aggressive members of this group.

(d) compared with other named types of behaviour, achievement behaviour is most frequently emitted by low ability group members.

(e) compared with males students, female students emit a higher percentage of achievement.

(f) compared with females, male students emit a slightly greater percentage of disinterested behaviours.

(g) there are observed differences in the behaviour of students as they change from one teacher to another.

(h) when being taught by a female, Negro middle-aged social studies teacher, the most frequently observed behaviour is achievement behaviour.

(i) when being taught by a female, white, young mathematics teacher the most frequently observed behaviour is non-academic interaction between students.

# Chapter 4: Propositional Inventories Relevant to the Diagnosis of, and Theory For, the Socialization of Academic Behaviour.

The contents of this final chapter will be organized and presented in the following way, Having provided some tentative answers to the question, "In what ways do low ability group members differ from members of the high ability group?" We now attempt to provide an answer to the question: On the basis of our findings, and in terms of both feasibility and effectiveness what can be done to modify the behaviour of relevant others in such a way as to improve the levels of academic performance and achievement motivation attained by members of the low ability group of students? In connection with this question, the behaviour of others is "relevant" if it can be shown that such behaviour is functionally related to the academic behaviour of the students in question. Listed below are a number of loosely stated propositions which cover a number of relevant student--other relations and more generally, which summarize our conclusions regarding the relationships between social structural, reinforcement and imitation. expectations, etc, and student behaviour and attitudes. It is against this background that we subsequently frame our melioristic proposals.

Propositional Inventory:

Social Structure: The probability of becoming or remaining a member of eighth grade low ability group varies with:

(1) Age

(a) the probability is highest for students who are younger than their classmates.(Table 2)

(2) Race

(a) the probability is highest for Negroes (Table 3)

(3) Residence

(a) the probability is highest for students who have always lived in a Southern, non-urban, small town. (Table 5)

(4) Density (home)

(a) the probability is highest for those students who come from homes with eleven or more persons -- adults and children --- in them. (Table 9 and 10)

(5) Occupation

(a) the probability is highest for those students who come from homes in which the parents are the encumbents of lowly ranked occupational roles. (Table 13 and 14)

Reinforcement Paradigm

The probability of becoming or remaining a member of a low ability group varies with the level of academic performance. That which increases or maintaings the level of performance, ipso facto, decreases the probability of recruitment to, or containment in, a low ability group. An increase in or maintenance of, a high level of performance ( doing well in school) is a function of:

(1) The value of the reward paired with the behaviour -- ceteris paribus, the higher the value the more likely the behaviour.

(a) the degree to which the father, mother, siblings and peers of students reward them "every time" for this behaviour (Table 16).

(2) The probability that the reward will be paired with the behaviour ceteris paribus, the higher the probability of pairing (CRF schedule) the more probable a response. (Table 17)

(a) the degree to which the father, mother, siblings and peers of students reward them "every time" for this behaviour (Table 17).

(3) The degree to which siblings and teachers pair "doing something" rather than "doing nothing" with this behaviour (Table 20).

Turning now to punishment, that which further lowers or maintains a low level of academic performance, ipso facto, increases the probability of recruitment to, or maintenance in, a low ability group. A lowering and/or maintenance of a low level of performance ("doing poorly in school") is a function of:

(1) The value of the punisher paired with the behaviour -- ceteris paribus, the higher the intensity of punishment the less likely the behaviour

(a) the degree to which, (1) father "talks to teachers, principal or counselor about it" and fails to "talk to the student about it," (2) mother, "tells the student to stop it and do better", (3) siblings follow the mother in telling the student to "stop it", (4) teachers, like the mother and siblings, tells the student to "stop it and do better", and unlike either, fails to "talk to the student about it". (Table 18)

(2) The probability that the punisher will be paired with the behaviour -- ceteris paribus, the higher the probability of pairing the more probable the response. (Table 19)

(a) The degree to which siblings, peers, and teachers pair "doing nothing" rather than "doing something" with this behaviour. (Table 20)

(b) The degree to which the father pairs "doing something" rather than "doing nothing" with this behaviour. (Table 20)

## Imitation Paradigm

The probability of recruitment to or maintenance in, a low ability group varies with:

(1) The educational attainment level of parents and siblings

(a) the higher the level of education achieved by father, mother, and siblings and friends, the lower the probability of entry into a low ability group (Tables 21, 22, 23)

(2) Student awareness of response consequences to the model for low academic achievement

(a) the lower the level of awareness, the greater the probability of entry into a low ability group. (Table 24).

(3) Student evaluations of response consequences to the model for low academic achievement

(a) the less negative the evaluation of these consequences the greater the probability of recruitment to a low ability group. (Table 24).

## Expectations of Others and Student Expectations and Behaviour

The probability of recruitment to or maintenance in a low ability group varies with:

(1) The perceived expectations of others, ceteribus paribus, the higher the expected level of academic performance, the lower the probability of entry into a low ability group.

(a) the degree to which students perceive their parents to have high expectations concerning their academic performance (Table 26)

(b) the degree to which students are simply aware of the expectations of parents concerning their academic performance

(c) the degree to which students perceive their teachers to have high expectations regarding their academic performance (Table 27)

Patterns of Inter-Racial Interaction

The frequency of interaction varies with:

(1) The racial status, of the interacting parties, ceteris paribus, the lighter the skin colour of a person the more frequently he interacts with others.

(a) Black (LAG) students tend to interact with others less frequently than do White (HAG) students. (Table 30)

(b) Black (LAG) students tend to interact less frequently with "friends" or with "parents" than do white (HAG) students. (Table 30)

(c) Black (LAG) students tend to completely avoid interacting with persons of another race more frequently than do white (HAG) students (Table 30)

(d) More black (LAG) students than white (HAG) students tend to believe that an improvement in their level of academic performance will increase the probability of more friendly relations with white students, black students, and black teachers. (Table 30)

Patterns of Perceived Trustiworthiness and Fairness of Teachers

(1) The probability that a teacher will be perceived as trustworthy varies with racial status, ceteribus paribus, the lighter the skin colour the greater the probability that a teacher will be perceived as untrustworthy

(a) fewer black (LAG) students tend to perceive white students as trustworthy than do white (HAG) students (Table 35)

(b) fewer white (HAG) students tend to perceive black students as trustworthy than do black (LAG) students. (Table 35)

(1) The probability that a teacher will be perceived of as: fair varies with the racial of students, ceteribus paribus, the lighter the skin colour the higher the probability that a teacher will be perceived as fair in his/her dealings with students.

(a) fewer black (LAG) students tend to perceive their white teachers or their balck teachers as fair, than do white (HAG) students. (Table 36)

Classroom Behaviour

(1) The probability of emission of specified types of classroom behaviour varies with the racial status of students, ceteribus paribus, the darker the skin colour the greater the probability of non-academic classroom behaviour.

(a) compared with white (HAG) students more black (LAG) students behave in a distractive, aggressive and defiant manner white in the classroom.* (Table 37)

(2) The probability of emission of achievement behaviour varies with the sexual composition of the classroom group, ceteris paribus, the greater the ratio of girls to boys, the greater the probability of achievement behaviour. (Table 38)

(3) The probability of emission of disinterested behaviour varies with the sexual composition of the classroom group, ceteris paribus, the greater the ration of boys to girls the greater the probability of desinterested behaviour. (Table 38)

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*based on self-report data.

(4) The probability of emission of specified types of classroom behaviour by black students, varies with the sexual, racial, and social class status of the teacher and also with the subject being taught.

(a) the probability of achievement behaviour is higher when black students are being taught Social Studies by a middle-aged, female. black teacher than when they are being taught mathematics by a young, female, white teacher. (Table 39)

(b) the probability of distraction and disinterested behaviour is higher when black students are being taught mathematics by a young female, white teacher than when they are being taught social studies by a middle-aged, female, black teacher. (Table 39)

## The Socialization of Academic Achievement Behaviour in Negro American Students

One of the major conclusions of the Coleman Report was that in terms of the possession of skills relevant to high academic test performance, there exists a considerable gap between black minority group and white majority students. The findings of our study do nothing to vitiate this somewhat commonplace sociological conclusion. To the extent that we have tried to go beyond the mere demonstration of a "racial gap" in academic abilities, and have also concerned ourselves with socialization and other alledgedly "causal" variables, this study cannot be counted among those which either ignore "causes of low Negro achievement" or those which explain the causes of lwo Negro achievement exclusively in terms of group differences in IQ".

However, to the extent that we have not gathered a greater variety of relevant data (observational and questionnaire/interview) through time, and independently from mother, father, siblings, friends out of school, peers, and teachers, as well as the students themselves we cannot place too much confidence in the findings of this pilot project. For this reason, our suggested proposal to the extent that they are based on our own data, must be regarded with measured caution.

From the propositions listed here, we may derive the following set of therapeutic proposals:

Social Structure

(1) Age: Negro students should not enter the regular school system at an age which creates a gap between their age status and the age status of the majority of their classmates.

(2) Residence: (a) Increase the proportion of state funds devoted to plant and facilities in public schools in Southern, non-urban areas.

(b) Provide special incentives to parents to become involved with the activities of schools in these areas

(c) Provide special incentives to teachers who teach in public schools in these areas

(d) Increase the relevance of the school curriculum to the economic basis and occupational structure of the Southern non-urban area, this may involve a redefinition of the concept of attainment.

Reinforcement Paradigin

Parental-Child Interaction

(1) Link child attainment in school with parental status in the local community. One way of doing this would be to use the resources of the

local newspaper to publish (weekly) the names and addresses of parents whose children have done exceptionally well in school. Alternatively a mimeo publication may be put out by the shcool itself and distributed locally by students. This will facilitate an increased interest of the parents in the school behaviour of the child, and will probably increase the frequency with which parents, especially the father, rewards the child for doing well in school.

### Peer-Child Interaction

(2) Link student attainment in school with the status of peer friends. One way of doing this would be to provide incentives to groups of students (not only grades, but occasionally tickets to school dances, local professional sports activities and so on) on the basis of an improvement in the level of academic performance of those members of the group doing least well in school. This will facilitate an increased interest of peer friends in the academic behaviour of the group or clique member, and will probabily increase the frequency with which the student is reinforced by his friends for doing well in school.

### Teacher-Student Interaction

(3) Link teacher status with increases in the level of student academic performance. To this end, the principal may devise and apply a system of local privileges based on improvement rates in student performance. This will decrease the likelihood that the teacher will pair indifference with desirable student behaviours.

Imitation Paradigm

(1) Regularly expose students to successful "academic models, local and national, whose family of orientation is very similar to that of the low achievement level student.

Teacher Expectations and Academic Behaviour

(1) As part of their formal training, all teachers should be required to take a course in social psychology in which areas covered included, (a) "The Effect of Teacher Expectations on the Academic Performance of Students". Rosenthal's book "Pygmalion in The Classroom" would be required reading, (b) "The Teacher Student Relationship as an Exchange Relationship". Homan's book "Social Behaviour: Its Elementary Forms" would be required reading.

The therapeutic strategies suggested here are rather fragmentary, but, as we suggested earlier, we do not feel that our data will support a more systematic and comprehensive therapeutic paradigm. In a future research endeavour we do plan to obtain data supportive of such a paradigm. We end our report by including a list of propositions pertinent to the general problem of the socialization of achievement behaviour:[1]

(1) The more punitive the social control exercised by parents the higher the probability that their children will be low attainment level students (Negro parents are more punitive than the parents of other ethnic groups) Ansubel 1966

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[1] For a discussion of all of the propositions which follow, see Katz, I. The socialization of academic motivation in minority groups. Nebraska Symposium on Motivation, 1967, pp. 133-191.

(2) The greater the emotional and social distance between parents and children the higher the probability that their children will be low attainment level students (Negro parents place greater social and emotional distance between themselves and their children than do the parents of other ethnic groups) Ansubel 1966

(3) The earlier the age at which the child comes under the influence of the peer group the greater the probability that he will be a low attainment level student (Negro parents begin to supervise their children far less closely while their children are at an early age, than do the parents of other ethnic groups) Ansubel 1966.

(4) The greater the influence of the peer group the greater the probability that the student will become a member of a low attainment level group (peers exert a greater influence over Negro students than they do over students of other ethnic groups) Ansubel 1966

(5) The lesser the trust a student has in others, the greater the probability that he will be a low attainment level student (because of their early (home) socialization experiences, Negro children are more distrustful of others than are children of other ethnic groups) Bettelheim 1964.

(6) The greater the level of achievement motivation (n. ach) inculcated in a student the greater the probability that he will be a high attainment level student, McClelland 1961.

(7) The level of achievement motivation inculcated in a child varies with the matricentricity of the family structure -- the more matricentric the family structure the lower the probability of a child's entry into a high achievement group (Negro families are more matricentric than are the families of other ethnic groups) McClelland 1961.

(8) The level of achievement motivation inculcated in a child varies inversely with the degree to which dependent behaviour is positively sanctioned and independent behaviour negatively sanctioned in the home. (Negro parents emphasize obedience more than do the parents of children of other ethnic groups) McClelland 1961

(9) The greater the degree to which a child is exposed to heterogeneous environmental stimuli relevant to participation in a complex society the greater the probability that he will engage in those behaviours leading to entry into a high achievement group. (Negro children, more than the children of other ethnic groups are not exposed to such stimuli) Mc V Hunt 1967.

(10) The greater the discontinuity between "home" stimuli and formal school classroom stimuli, the greater the probability of a lack of motivation to engage in those activities necessary to reach a high level of attainment. (Negro children, experience a larger gap, between home and school than do the other ethnic groups). Mc V Hunt 1967.

(11) The greater the articulateness of a child, the greater the probabiliy that he will reach a high level of academic attainment (Negroes use the language with less facility than do the children of other ethnic groups) Bereiter and Engelmann 1966.

(12) The greater the degree of conflict between the values and goals of a minority group and those of the majority group, the lower the likelihood of entry into a high achievement group. (There is greater conflict between the goals and values inculcated into the Negro child and the goals and values of the majority group than there is between the goals and values inculcated into children of other ethnic groups and the goals and values of the majority group) Reissman (1962).

(13) The level of educational achievement attained by a student varies directly with teacher expectations regarding level of attainment for that student. (Compared with students of other ethnic groups, more Negro students find that their teachers do not expect them to attain a high level of educational achievement) Clark 1965: Rosenthal 1967.

(14) The motivation for high academic attainment varies with the degree to which parents indulcate in their children, both high standards of excellence and the propensity to reward oneself by the simple fact of attaining these standards. (Compared with students of other ethnic groups, Negro students have, to a lesser extent, "internalized standards of excellence and of affect mediating evaluative responses to their own (academic) behaviour" Katz, 1967.

## Appendix 1

### Teacher Evaluation Sheet

INSTRUCTION: First of all we would like you to think of all the specific things students do during school hours which you like (feel they ought to do, feel is appropriate) and all the specific things they do which you dislike (feel they ought not to do, feel it is inappropriate). Let's begin with what you like and try to be specific as you can. ------Now, what about the things you dislike.

| LIKES | CODE | | DISLIKES |
|---|---|---|---|
| | | | |

## Appendix I (continued)

INSTRUCTION: Now we would like to know if you would describe these things by any of the following words:

1. cooperation
2. competition
3. aggression
4. achievement
5. lack of cooperation
6. lack of competition
7. lack of aggression
8. lack of achievement
9. none of the above (write in specific description)

INSTRUCTION: Are there any other specific examples of student behaviour that you feel can be described by any of the above words.

# Appendix II

## Behaviour Rating Instrument

I. Achievement Behavior

A. Eyes

1. looking at assignment paper
2. looking up answers upon completion of exam
3. looking at T
4. looking at film or blackboard
5. looking at course text

B. Hands

1. raise hand before verbalize or volunteer
2. writing in-class assignment
3. taking course notes

C. Mouth

1. talking to T about course
2. talking to S about course
3. contradicting T with evidence
4. asking T question not asked
5. answer T question not answered previously
6. reading course material
7. quiet when T leaves room
8. ask T about own grade
9. ask T about S grade
10. telling T grade is wrong
11. asking for additional work
12. talk to T after class
13. answer S question
14. ask S his grade
15. challenge S ("I get you on the next quiz")

D. Body and Equipment

1. bring book, paper, pencil to class
2. paper and pencil on desk in writing position
3. book open during reading assignment
4. approaching front of room or blackboard rapidly
5. helping S or T when T has given permission

II. Cheating

A. Eyes

1. looking at S in-class assignment paper
2. looking at book or notes during close-book assignment

B. Hands

1. show ungraded assignment paper to S
2. falsifying grade (self-graded)

C. Mouth

1. ask S answer to assignment question
2. give S answer to assignment question

D. Body and Equipment

III. Disinterested Behavior (non-ABDE)

A. Eyes

1. looking through non-course materials (books, magazines, albums, notebook, notes, snapshots
2. looking through rolled paper
3. not looking at exam when answers being given
4. not looking at return exam
5. watching clock or watch
6. eyes closed
7. looking out window or door
8. looking at ceiling or floor

B. Hands

1. playing with non-course objects (purse, fingernails, keys, eraser, yardstick, clippers, toy, window, cosmetics, earrings, clothes, paper, hair, glasses, rubberbands)
2. writing non-course notes, doodling on paper, arm, blackboard, desk)
3. does not take down assignment
4. putting materials away before bell
5. taking book from bookshelf
6. rolling or tearing papers
7. playing with desk or chair, tilting chair
8. not doing in-class assignment

C. Mouth

1. eating candy or chewing gum
2. talking to self
3. won't answer roll
4. not talk in French
5. not talking to T
6. verbal expressions of indifference ("I don't care if I'm expelled" "I don't want to")

D. Body and Equipment

1. slouching in chair or feet on desk
2. late to class
3. late to class without excuse
4. not bring book, paper, pencil to class
5. paper and pencil on desk in writing position
6. book not open during reading assignment
7. books stacked on top of desk
8. not doing in-class assignment
9. head on desk, book, arm
10. S achievement behaviour when not related to present instruction (e. g. Reading text when other student is giving report.)

IV. Distraction Behavior

A. Eyes

1. looking through T materials (desk, books, watch, papers)

B. Hands

1. tapping, banging, drumming, stomping, slamming, dropping, kicking (hand, pencil, book on desk, hand, blackboard, floor)
2. moving chairs, desk
3. taking T materials
4. "hiding" from T (under coat, behind S)
5. "conducting" with hands and arms
6. touching S to get attention
7. writing obsence words on paper, blackboard

C. Mouth

1. laughing, mock laughter, faces
2. contradicting T without evidence
3. asking T question asked previously
4. asking T question answered previously
5. repeat T or S
6. not raising hand before talking
7. raising hand simultaneous with talking
8. answer or ask question with smirk
9. ask S to sharpen pencil or for materials
10. interrupt T or S apeaking
11. unnecessary comment ("Look, I'm finished", "excuse me" after burping)
12. singing, humming, burping, whistling, moaning, clearling throat
13. listening to radio

D. Body and Equipment

1. standing up, walking, changing chairs, sharpening pencils, washing hands, disposing of paper
2. swaggering or waltzing or jazzy walk
3. running
4. cutting in line (pencil sharpener)

V. Aggressive Behavior

A. Eyes

B. Hands

1. hitting, swinging at, poking, fake hitting, mock fighting, clenched first, tripping, pulling, pushing, grabbing, snappint at S or T
2. throwing objects at S
3. taking S materials (pencil, paper, purse)
4. putting paper down S shirt, coat cleeve
5. writing on S shirt, paper, book, desk
6. "bossy" comments ("toss those papers back", "be quiet")

C. Mouth

1. laughing at or mocking S question or answer
2. laughing at or mocking T question or answer
3. name calling
4. criticizing S ("that's a stupid question")
5. threaten S or T ("Knock your eyes out", "don't you dare do that", "I'm going to hit you")
6. dislike of S or T ("I can't stand you")
7. swearing or obscene language to T or S
8. report inappropriate S behavior to T

D. Body and Equipment

VI. Reward Behaviour

A. Eyes

1. facing S (when T is talking)
2. rolling eyes or winking at S
3. showing non-course materials to S (books, magazine, alblum,

B. Hands

1. showing non-course materials to S (books, magazine, alblum, note, snapshot)
2. "shooting" finger at T (other gestures)

C. Mouth

1. talking to S particularly when told not to
2. mouthing words or hand signals to S
3. laughing, mock laughing, smiling at S being disciplined

# Appendix II

## Teacher Behavior Categories

1. A. non-interaction behavior (looking through books, writing on board, roll-taking)
2. B. sociability (joking, greetings, bye-bye)
3. C. formal instruction, specific student
4. D. behavior-control instruction (stop distraction-aggression behavior)
5. E. contingency instruction
   1. performance-skill-intelligence (right or wrong)
      a. expectation vs. consequence
      b. positive vs. negative
   2. esteem from teacher (rebuke, praise, disappointment)
      a. expectation vs. consequence
      b. positive vs. negative
   3. esteem from peers (tell peers about S, fairness to peers)
      a. expectation vs consequence
      b. positive vs. negative
   4. self-esteem (proud of self, dignity, grow-up)
      a. expectation vs. consequence
      b. positive vs. negative
   5. grades (grading, testing, failing)
      a. expectation vs. consequence
      b. positive vs. negative
   6. Information (learning, refusing to continue instruction)
      a. expectation vs. consequence
      b. positive vs. negative
   7. activities (privilege, give & take things, additional work)
      a. expectation vs consequence
      b. positive vs. negative
   8. time (detention, detain after bell)
      a. expectation vs. consequence
      b. positive vs. negative
   9. physical contact (spanking, pushing, hugging, patting on back)
      a. expectation vs. consequence
      b. positive vs. negative
   10. distance from Teacher (walks toward S, stands beside S)
      a. expectation vs. consequences
   11. distance from peers (seat in hall, change seat)
      a. expectation vs. consequences
   12. distance from higher authority (sent to principal's office)
      a. expectation vs. consequence
   13. symbolic control (smile, frown, shake head vertically-horizontally, snap fingers)
      a. positive vs. negative
   14.. performance in future roles (occupation, parent)
      a. positive vs. negative

## Appendix III

Class__________ Observer__________
Grade__________ Date__________
Teacher__________
Students (1)__________ (6)__________
(2)__________ (7)__________
(3)__________ (8)__________
(4)__________ (9)__________
(5)__________ (10)__________

Setting (situation and activity)__________

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| | A | B | A | B | A | B | A | B | A | B | A | B | A | B | A | B | A | B | A | B |
| Student | | | | | | | | | | | | | | | | | | | | |
| 1 Ach | | | | | | | | | | | | | | | | | | | | |
| 2 Cheat | | | | | | | | | | | | | | | | | | | | |
| 3 Disin | | | | | | | | | | | | | | | | | | | | |
| 3-Mix | | | | | | | | | | | | | | | | | | | | |
| 4 Distr | | | | | | | | | | | | | | | | | | | | |
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| Teacher | | | | | | | | | | | | | | | | | | | | |
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| 5 Perf | | | | | | | | | | | | | | | | | | | | |
| 6 T.est | | | | | | | | | | | | | | | | | | | | |
| 7 P.est | | | | | | | | | | | | | | | | | | | | |
| 8 S.est | | | | | | | | | | | | | | | | | | | | |
| 9 Grades | | | | | | | | | | | | | | | | | | | | |
| 10 Inform | | | | | | | | | | | | | | | | | | | | |
| 11 Act | | | | | | | | | | | | | | | | | | | | |
| 12 Time | | | | | | | | | | | | | | | | | | | | |
| 13 Cont | | | | | | | | | | | | | | | | | | | | |
| 14 T.dis | | | | | | | | | | | | | | | | | | | | |
| 15 P.dis | | | | | | | | | | | | | | | | | | | | |
| 16 A dis | | | | | | | | | | | | | | | | | | | | |
| 17 Symbol | | | | | | | | | | | | | | | | | | | | |
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| 12 Time |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 13 Cont |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 14 T.dis |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15 P.dis |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 16 A dis |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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# Appendix V1

Code Number ____________

Section Number _____________

## EDUCATIONAL OPPORTUNITY PROJECT

## GUY B. PHILLIPS SCHOOL

Instructions:

1. The purpose of this questionnaire is to help the school be a better school. You, as a student, are very important in showing the school how it can become a better school. We need your help.

2. In order for you to help the school and the students who will be in it, your answers to the following questions must be accurate.

3. If a question is not clear, put a question mark beside it.

4. Because you will be answering these questions both today and tomorrow, you need to write your name on the slip of paper on the front. Thus, we can make sure you get your own questionnaire tomorrow. After tomorrow, we will tear this paper off and throw it away. No one will know whose questionnaire it is.

5. For most of the questions circle only one answer. Circle the number beside the answer and not the answer itself. A few questions will ask you to circle more than one answer. This is an example of the way to answer questions.

47 What is the name of the town in which you live?

1 Raleigh
2 Durham
[✓ 3] Chapel Hill
4 Greensboro

1. Are you a boy or girl?

   1 Boy
   2 Girl

2. How old are you now?

   1 9 or younger
   2 10
   3 11
   4 12
   5 13
   6 14
   7 15
   8 16 or older

3. Where did you live just before you moved to Chapel Hill?

   1 Have always lived in Chapel Hill
   2 In this county but not in this town
   3 Somewhere else in the state
   4 In another state in the U.S.
   5 In another country

4. How big of a town did you live in just before you moved to Chapel Hill?

   1 Have always lived in Chapel Hill
   2 A large city such as Washington, D. C., Atlanta, St. Louis, or Chicago
   3 A large town such as Greensboro, Raleigh, Charlotte, or Durham
   4 A small town such as Chapel Hill
   5 The country

5. How old were you when you first moved to Chapel Hill?

   0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

6. Which one of the following best describes you?

   1 Negro
   2 White
   3 American Indian
   4 Oriental
   5 Mexican
   6 Other

7. Who are the people who usually live in your home? Circle each person.

1 Father
2 Stepfather
3 Foster father
4 Mother
5 Stepmother
6 Foster mother
7 Grandmother on your mother's side
8 Grandfather on your mother's side
9 Aunt on your mother's side
10 Uncle on your mother's side
11 Cousins on your mother's side
12 Grandmother on your father's side
13 Grandfather on your father's side
14 Aunt on your father's side
15 Uncle on your father's side
16 Cousins on your father's side
17 Older brother (s)
18 Younger brother(s)
19 Older sister(s)
20 Younger sister(s)
21 Other relatives
22 Friend of the family

8. How many people live in your home? Count mother, father, brothers, sisters, aunts, uncles, grandparents, friends, and any others who live with you. Count yourself but don't count your pets.

2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

9. How many children (under 18) are in your family? Count yourself.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

10. Where does most of the money come from that pays for your food, house, and clothing?

1 My father's work
2 My mother's work
3 My stepfather or male relative's work
4 My stepmother or female relative's work
5 Insurance
6 Unemployment compensation or other government agency
7 Someone not listed above
8 Don't know

11. Did you go to nursery school before you went to kindergarten or first grade?

1 Yes
2 No
3 Don't remember

12 Did you go to kindergarten before you started the first grade?

1 Yes
2 No
3 Don't remember

13. How many different schools have you gone to since you started the first grade?

1 2--this school and one other
2 3
3 4
4 5 or more schools

14. What was the first grade you attended with students from another race in your classes?

1 2 3 4 5 6 7 8 9

15. IF YOU ARE A BOY, ANSWER THE FOLLOWING QUESTION:

When you finish school, what sort of job do you think you will have? Pick one that is closest.

1 Draftsman or medical technician
2 Banker, company officer or government official
3 Store owner or manager, office manager
4 Sales clerk, office clerk truck driver, waiter, policeman, bookkeeper, mailman, barber
5 Salesman
6 Farm or ranch manager or owner
7 Farm worker on one or more than one farm
8 Janitor, factory worker, laborer, construction worker, or gas station attendent
9 Professor, doctor, lawyer, clergyman, engineer, scientist, teacher, artist, accountant
10 Carpenter, electrician, mechanic, tailor, or foreman in a factory
11 Professional athlete, actor, singer, entertainer
12 Don't know

16. IF YOU ARE A GIRL, ANSWER THE FOLLOWING QUESTION

When you finish school, what sort of job do you think you will have? Pick one that is closest.

1 Housewife only
2 Doctor, lawyer, scientist
3 Beautician
4 Bookkeeper or secretary
5 Waitress or laundry worker
6 School teacher
7 Nurse
8 Saleslady
9 Maid or domestic
10 Factory worker
11 Actor, singer, entertainer
12 Other
13 Don't know

17. Do you feel you will be happy with this sort of job?

1 Yes, very happy
2 Yes, somewhat happy
3 No
4 Don't know

18. Do you feel that planning for a job is useless because your plans won't work out anyway?

1 Yes
2 No
3 Don't know

THE FOLLOWING QUESTIONS HAVE TO DO WITH YOUR FATHER OR THE PERSON ACTING AS YOUR FATHER. IF YOU DON'T SEE EITHER ONE, SKIP TO QUESTION 34.

19. Who acts as your father?

1 My real father, who is living at home
2 My real father, who is not living at home
3 My stepfather
4 A foster father
5 A grandfather
6 Other relative (uncle, etc.)
7 Other adult
8 No one

20. What kind of work does, or did, your father (or person acting as your father) usually do? If it is not in the list below, mark whatever seems to be the closest for his main job.

1 Draftsman or medical technician
2 Banker, company officer, or government official
3 Store owner or manager, office manager
4 Sales Clerk, office clerk, truck driver, waiter, policeman, bookkeeper, mailman, barber
5 Salesman
6 Farm or ranch manager or owner
7 Farm worker on one or more than one farm
8 Janitor, factory worker, laborer, construction worker, or gas station attendent
9 Professor, doctor, lawyer, clergyman, engineer, scientist, teacher, artist, accountant
10 Carpenter, electrician, mechanic, tailor, or foreman in a factory
11 Don't know

21. To give us a better idea of your father's work, please tell us exactly what he does. ____________________________________________________________________________________________

____________________________________________________________________________________________________

22. Is your father working at the present time?

1 Yes, he is working full-time 7
2 Yes, he is working part-time
3 No, he has not been able to get work for a month
4 No, he has not been able to get work for over a month

23. How far did your father (or the person who acts as your father go in school? )

1 None, or some grade school
2 Finished grade school
3 Junior high school
4 Some high school, but did not graduate
5 Graduated from high school
6 Technical or business school after high school
7 Some college but less than 4 years
8 Graduated from a 4 year college
9 Attended graduate or professional school
10 Don't know

24. If your father had gone further in school, could he have gotten a better job and earned more money?

1 Yes
2 No
3 Don't know

25. What does your father (or person acting as your father) do when you do well in school work? Circle each thing he does.

1 He does nothing
2 He tells me how pleased he is
3 He hugs or kisses me
4 He lets me do something special or go a special place
5 He tells other people about it
6 He gives me something special (gift, money, or such)
7 He does something else. What?____________________________

26. How often does your father do these things? Circle only one.

1 Almost every time I do well in school work
2 About half of the times I do well in school work
3 Only a few of the times I do well in school work

27. Do the fathers of your friends do these things more or less often than your father? Circle only one.

1 My friends' fathers do these things more often than my father
2 My friends' fathers do these things about the same as my father
3 My friends' fathers do these things less often than my father

28. What does your father do when you do poorly in school work. Circle each thing.

1 He does nothing
2 He tells me to stop it and to do better
3 He scolds me and tells me how disappointed he is
4 He spanks or hits me
5 He talks to teachers, principal, or school counselors
6 He doesn't let me have things I want or takes them away from me
7 He helps me with my homework
8 He makes me spend more time at my homework
9 He simply talks to me about it
10 He does something else. What? ____________________________

29. How often does your father do these things? Circle only one.

1 Almost every time I do poorly in school work
2 About half of the times I do poorly in school work
3 Only a few of the times I do poorly in school work

30. Do the fathers of your friends do these things more or less often than your father? Circle only one.

1 My friends' fathers do these things more often than my father
2 My friends' fathers do these things about the same as my father
3 My friends' fathers do these things less often than my father

31. How often does your father help you with your homework? Circle only one.

1 All of the time
2 Some of the time
3 Never

32. What does your father want you to be most now?

1 A good student
2 A good athlete
3 A person well liked by his fellow students
4 A person with a good job
5 A person who does what his parents and teachers tell him to do
6 A person who is a member of school clubs or organizations
7 I don't know

33. How much schooling does your father think you will finish?

1 He thinks I will not finish high school
2 He thinks I will finish high school only
3 He thinks I will go to a technical, nursing, or business school after high school
4 He thinks I will go to some college, but less than 4 years
5 He thinks I will graduate from a 4 year college
6 He thinks I will go to professional or graduate school
7 I don't know

THE FOLLOWING QUESTIONS HAVE TO DO WITH YOUR MOTHER OR THE PERSON ACTING AS YOUR MOTHER. IF YOU DON'T SEE EITHER ONE, SKIP TO QUESTION 49.

34. Who acts as your mother?

1 My real mother, who is living at home
2 My real mother, who is not living at home
3 My stepmother
4 A foster mother
5 A grandmother
6 Other relative (aunt, etc.)
7 Other adult
8 No one

35. Does your mother have a job outside your home?

1 Yes, full-time
2 Yes, part-time
3 No

36. What kind of work does your mother (or person acting as your mother) usually do? If it is not on the list below mark whatever seems to be the closest for her main job.

1 Housewife only
2 Doctor, lawyer, scientist
3 Beautician
4 Bookkeeper or secretary
5 Waitress or laundry worker
6 School teacher
7 Nurse
8 Saleslady
9 Maid or domestic
10 Factory worker
11 Other ______________________________
12 Don't know

37. To give us a better idea of your mother's work, please tell us exactly what she does.

______________________________________________________________________

38. How far did your mother (or the person who acts as your mother) go in school?

1 None, or some grade school
2 Finished grade school
3 Junior high school
4 Some high school, but did not graduate
5 Graduated from high school
6 Technical or business school after high school
7 Some college but less than 4 years
8 Graduated from a 4 year college
9 Attended graduate or professional school
10 Don't know

39. If your mother had gone further in school, could she have gotten a better job or become a better wife and mother?

1 Yes
2 No
3 Don't know

40. What does your mother (or person acting as your mother) do when you do _well_ in school work? Circle each thing she does.

1 She does nothing
2 She tells me how pleased she is
3 She hugs or kisses me
4 She lets me do something special or go a special place
5 She tells other people about it
6 She gives me something special (gift, money, or such)
7 She does something else. What?____________________________________

41. How _often_ does your mother do these things? Circle only one.

1 Almost _every_ time I do well in school work
2 About _half_ of the times I do well in school work
3 Only a _few_ of the times I do well in school work

42. Do the mothers of your friends do these things more or less often than your mother? Circle only one.

1 My friends' mothers do these things _more_ often than my mother
2 My friends' mothers do these things about the _same_ as my mother
3 My friends' mothers do these things _less_ often than my mother

43. What does your mother do when you do _poorly_ in school work? Circle each thing.

1 She does nothing
2 She tells me to stop it and to do better
3 She scolds me and tells me how disappointed she is
4 She spanks or hits me
5 She talks to teachers, principal, or school counselors
6 She doesn't let me have things I want or takes them away from me
7 She helps me with my homework
8 She makes me spend more time at my homework
9 She simply talks to me about it
10 She does something else. What?____________________________________

44. How _often_ does your mother do these things? Circle only one.

1 Almost _every_ time I do poorly in school work
2 About _half_ of the times I do poorly in school work
3 Only a _few_ of the times I do poorly in school work

45. Do the mothers of your friends do these things more or less often than your mother? Circle only one.

1 My friends' mothers do these things _more_ often than my mother
2 My friends' mothers do these things about the _same_ as my mother
3 My friends' mothers do these things _less_ often than my mother

46. How often does your mother help you with your homework? Circle only one.

1 All of the time
2 Some of the time
3 Never

47. What does your mother want you to be most now?

1 A good student
2 A good athlete
3 A person well liked by his fellow students
4 A person with a good job
5 A person who does what his parents and teachers tell him to do
6 A person who is a member of school clubs or organizations
7 I don't know

48. How much schooling does your mother think you will finish?

1 She thinks I will not finish high school
2 She thinks I will finish high school only
3 She thinks I will go to a technical, nursing, or business school after high school
4 She thinks I will go to some college, but less than 4 years
5 She thinks I will graduate from a 4 year college
6 She thinks I will go to professional or graduate school
7 I don't know

THE FOLLOWING QUESTIONS HAVE TO DO WITH YOUR BROTHERS AND SISTERS. IF YOU DON"T HAVE EITHER, SKIP TO QUESTION 65. IF YOU HAVE BROTHERS OR SISTERS, PLEASE ANSWER THESE QUESTIONS.

49. Do you have at least one older brother who is still in school?

1 Yes
2 No

If you have at least one older brother who is still in school, how far has the oldest brother gone in school?

1 Junior high school
2 High school
3 Technical or business school
4 College
5 Graduate or professional school

50. Do you have at least one older brother who is not in school?

1 Yes
2 No

51. If you have at least one older brother who is not in school, how far did your oldest brother go in school?

1 Finished grade school
2 Junior high school
3 Some high school, but did not graduate
4 Graduated from high school
5 Technical or business school after high school
6 Some college but less than 4 years
7 Graduated from a 4 year college
8 Attended graduate or profession school
9 Don't know

52. If this brother had gone further in school, could he have gotten a better job and earned more money?

1 Yes
2 No
3 Don't know

53. Do you have at least one older sister who is still in school?

1 Yes
2 No

54. If you have at least one older sister who is still in school, how far has the oldest sister gone in school?

1 Junior high school
2 High school
3 Technical or business school
4 College
5 Graduate or professional school

55. Do you have at least one older sister who is not in school?

1 Yes
2 No

56. If you have at least one older sister who is not in school, how far did your oldest sister go in school?

1 Finished grade school
2 Junior high school
3 Some high school, but did not graduate
4 Graduated from high school
5 Technical or business school after high school
6 Some college but less than 4 years
7 Graduated from a 4 year college
8 Attended graduate or professional school
9 Don't know

57. If your sister had gone further in school, could she have gotten a better job or become a better wife and mother?

1 Yes
2 No
3 Don't know

58. What do most of your brothers and sisters do when you do well in school work?

1 Do nothing
2 Tell me to keep it up
3 Tell me how pleased they are
4 Tell others about it
5 Tell me not to do too well
6 Do something else. What?________________________________

59. How often do they do these things? Circle only one.

1 Almost every time I do well in school work
2 About half of the times I do well in school work
3 Only a few of the times I do well in school work

60. What do most of your brothers and sisters do when you do poorly in school work?

1 Do nothing
2 Tell me to stop it and to do better
3 Scold me and tell me how disappointed they are
4 Not talk to me or not run around with me
5 Tell my parents or my teachers
6 Laugh and think it is funny
7 Help me with my homework
8 Simply talk to me about it
9 Do something else. What?________________________________

61. How often do they do these things? Circle only one.

1 Almost every time I do poorly in school work
2 About half of the times I do poorly in school work
3 Only a few of the times I do poorly in school work

62. How often do your brothers and sisters help you with your homework? Circle one.

1 All of the time
2 Some of the time
3 Never

63. What do your brothers and sisters want you to be most now? Circle only one.

1 A good student
2 A good athlete
3 A person well liked by his fellow students
4 A person with a good job
5 A person who does what his parents and teachers tell him to do
6 A person who is a member of school clubs or organizations

64. How much schooling do your brothers and sisters think you will finish?

1 They think I will not finish high school
2 They think I will finish high school only
3 They think I will go to technical, nursing, or business school after high school
4 They think I will go to some college, but less than 4 years
5 They think I will graduate from a 4 year college
6 They think I will go to professional or graduate school
7 I don't know

ANSWER THE FOLLOWING QUESTIONS WHETHER YOU ARE A BOY OR GIRL

65. Do you have any friends who quit school before they finished high school?

1 Yes
2 No

66. If you do have a friend who quit school before they finished high school, did this hurt your friend in getting a good job and making good money or in being a good wife and mother?

1 Yes
2 No
3 Don't know

67. What do most of your friends do when you do well in school work?

1 Do nothing
2 Tell me to keep it up
3 Tell me how pleased they are
4 Tell others about it
5 Tell me not to do too well
6 Do something else. What?____________________

68. How often do they do these things? Circle only one.

1 Almost every time I do well in school work
2 About half of the times I do well in school work
3 Only a few of the times I do well in school work

69. What do most of your friends do when you do poorly in school work?

1 Do nothing
2 Tell me to stop it and to do better
3 Scold me and tell me how disappointed they are
4 Not talk to me or not run around with me
5 Tell my parents or my teachers
6 Laugh and think it is funny
7 Help me with my homework
8 Simply talk to me about it
9 Do something else. What?____________________

70. How often do they do these things? Circle only one.

1 Almost every time I do poorly in school work
2 About half of the times I do poorly in school work
3 Only a few of the times I do poorly in school work

71. How often do your friends help you with your homework? Circle only one.

1 All of the time
2 Some of the time
3 Never

72. What do your friends want you to be most now? Circle only one.

1 A good student
2 A good athlete
3 A person well liked by his fellow students
4 A person with a good job
5 A person who does what his parents and teachers tell him to do
6 A person who is a member of school clubs and organizations

73. How much schooling do your brothers and sisters think you will finish? Circle only one.

1 They think I will not finish high school
2 They think I will finish high school only
3 They think I will go to technical, nursing, or business school after high school
4 They think I will go to some college, but less than 4 years
5 They think I will graduate from a 4 year college
6 They think I will go to professional or graduate school
7 I don't know

74. Do you feel that if you were a better student, students who are white would be better friends with you?

1 Yes
2 No
3 Don't know

75. Do you feel that if you were a better student, students who are Negro would be better friends with you?

1 Yes
2 No
3 Don't know

76. If you had to make a choice, which would you prefer your best friends to be or do? Circle either the choice on the left or the choice on the right. Do not do both.

| | |
|---|---|
| Boy | Girl |
| Older than I | Same age or younger than I |
| Tall | Short |
| Thin | Fat |
| Good-looking | Average or not good-looking |
| Negro | White |
| Wear glasses | Not wear glasses |
| Short hair | Long hair |
| Girls who wear dresses | Girls who wear shorts or slacks |
| Live on the same block as I | Live on different block from I |
| Better grades than I | Same or poorer grades than I |
| Laughs alot | Laughs little |
| Tells me what to do | Doesn't tell me what to do |
| Lives in nicer home than I | Lives in similar or poorer home than I |
| Fights alot | Never fights |
| Popular with teachers | Not popular with teachers |
| Muscular boy | Average sized boy |
| Not sexy | Sexy |
| Wears expensive clothes | Wears inexpensive clothes |
| Studies alot | Studies little |
| Shares things like money and clothes with me | Doesn't share things like money and clothes with me |
| Popular with opposite sex | Not popular with opposite sex |
| Girls with little make-up | Girls with much make-up |
| Wild clothes | Average clothes |

77. What do most of your teachers do when you do well in school work? Circle each thing they do

1 They do nothing
2 They tell me to keep it up
3 They tell me how pleased they are
4 They let me do something special or go a special place
5 They tell my parents or other teachers about it
6 They give me something special (gift, candy, or such)
7 They do something else. What?______________________________________

78. How often do most of your teachers do these things? Circle only one.

1 Almost every time I do well in school work
2 About half of the times I do well in school work
3 Only a few of the times I do well in school work

79. Do your teachers do this more or less often for other students than they do for you? Circle only one.

1 Teachers do these things more often for other students than for me
2 Teachers do these things about the same for other students as for me
3 Teachers do these things less often for other students than for me
4 I don't know

80. What do most of your teachers do when you do poorly in school work? Circle each thing they do.

1 My teachers do nothing
2 They tell me to stop and to do better
3 They scold me and tell me how disappointed they are
4 They spank or hit me
5 They don't let me do things or send me to detention
6 They talk to my parents or to the principal
7 They stop talking to me
8 They help me with my homework
9 They simply talk to me about it
10 They do something else. What?______________________________________

81. How often do most of your teachers do these things? Circle only one.

1 Almost every time I do poorly in school work
2 About half of the times I do poorly in school work
3 Only a few of the times I do poorly in school work

82. Do your teachers do this more or less often to other students than they do to you? Circle only one.

1 Teachers do these things more often to other students than to me
2 Teachers do these things about the same to other students as to me
3 Teachers do these things less often to other students than to me
4 I don't know

83. What do your teachers want you to be most now? Circle only one.

1 A good student
2 A good athlete
3 A person well liked by fellow students
4 A person with a good job
5 A person who does what his parents and teachers tell him to do
6 A person who is a member of school clubs or organizations
7 I don't know

84. How much schooling do most of your teachers think you will finish? Circle only one.

1 They think I will not finish high school
2 They think I will finish high school only
3 They think I will go to technical, nursing, or business school after high school
4 They think I will go to some college, but less than 4 years
5 They think I will graduate from a 4 year college
6 They think I will go to professional or graduate school
7 I don't know

85. Do you feel that if you were a better student, teachers who are white would be better friends with you? Circle only one.

1 Yes
2 No
3 Don't know

86. Do you feel that if you were a better student, teachers who are Negro would be better friends with you? Circle only one.

1 Yes
2 No
3 Don't know

87. If you had to make a choice, which would you prefer a teacher to be or to do? Circle either the choice on the left or the choice on the right. Do not do both.

| | |
|---|---|
| Man | Woman |
| Old | Young |
| Tall | Short |
| Fat | Thin |
| Married | Single |
| Negro | White |
| Easy grader | Hard grader |
| Lots of homework | Little homework |
| Regular teacher | Student teacher |
| Uses big words | Uses little words |
| Big smiler | Little smiler |
| Very smart | Average smart |
| Wild dresser | Average dresser |
| Loses temper | Controls temper |
| Won't let you get away with things | Lets you get away with things |
| Average friendly | Very friendly |
| Muscular male | Average sized male |
| Female with little make-up | Female with much make-up |
| Sexy | Average or not sexy |

88. Do you think that someday you might like to be a teacher?

1 Yes
2 No
3 Don't know

89. If told to do different things by your teacher and your parents, what would you do?

1 Do what my teacher tells me to do
2 Do what my parents tell me to do
3 Try to do both
4 Don't know

90. If told to do different things by your teacher and your friends, what would you do?

1 Do what my teacher tells me to do
2 Do what my friends tell me to do
3 Try to do both
4 Don't know

91. Do you feel that most of your teachers know much about the subjects they teach?

1 Yes
2 No
3 Don't know

92. Do you feel that most of your teachers know much about things other than what they teach?

1 Yes
2 No
3 Don't know

93. Do you feel that many times you know as much as your white teachers?

1 Yes
2 No
3 Don't know

94 Do you feel that many times you know as much as your Negro teachers?

1 Yes
2 No
3 Don't know

95. Do you feel that many times your parents know as much as your teachers?

1 Yes
2 No
3 Don't know

96. Do you feel that many times your friends know as much as your teachers?

1 Yes
2 No
3 Don't know

97. Do you feel that you can trust most of your teachers who are white?

1 Yes
2 No
3 Don't know

98. Do you feel that you can trust most of your teachers who are Negro?

1 Yes
2 No
3 Don't know

99. Do you feel that most of your teachers who are white are fair?

1 Yes
2 No
3 Don't know

100. Do you feel that most of your teachers who are Negro are fair?

1 Yes
2 No
3 Don't know

101. Do you feel that you have a say in what is taught at this school?

1 Yes
2 No
3 Don't know

102. Do you feel that you are forced to do what the teachers and principal tell you to do?

1 Yes
2 No
3 Don't know

103. Do you feel you could learn most of the things your teachers want you to learn?

1 Yes
2 No
3 Don't know

104. Do you feel you owe it to your teachers to try to do well in school?

1 Yes
2 No
3 Don't know

105. Do you feel that the things your teachers are trying to teach you will help you get a better job and earn more money or be a better wife and mother?

1 Yes
2 No
3 Don't know

106. Do you feel that if you work hard in school you will get good grades?

1 Yes
2 No
3 Don't know

107. Do you feel that if you get good grades in school you will get a good job and earn more money?

1 Yes
2 No
3 Don't know

108. Do you feel that the longer you stay in school the better job you will get and the more money you will earn?

1 Yes
2 No
3 Don't know

109. Do you feel that many times you know as much as your parents?

1 Yes
2 No
3 Don't know

110. Do you feel that most of the time you know as much as your friends?

1 Yes
2 No
3 Don't know

111. Do you feel that you can trust most of the students who are white?

1 Yes
2 No
3 Don't know

112. Do you feel that you can trust most of the students who are Negro?

1 Yes
2 No
3 Don't know

113. Do you feel you owe to your parents to try to do well in school?

1 Yes
2 No
3 Don't know

114 Do you feel you owe to your friends to try to do well in school?

1 Yes
2 No
3 Don't know

115. Do you feel you owe it to yourself to do well in school?

1 Yes
2 No
3 Don't know

116. What is your grade average for all your junior high school courses?

1 A (either A-, A, or A+)
2 B (either B-, B, or B+)
3 C (either C-, C, or C+)
4 D (either D-, D, or D+)
5 Don't know

117. Is your grade average this year higher or lower than your grade average the last couple of years?

1 My grade average this year is higher
2 My grade average this year is about the same
3 My grade average this year is lower
4 Don't know

118. Is your grade average this year higher or lower than your friends' grade average?

1 My grade average is higher than my friends' grade average
2 My grade average is about the same as my friends' grade average
3 My grade average is lower than my friends' grade average
4 Don't know

119. Is your grade average this year higher or lower than what your parents expect it to be?

1 My grade average is higher than my parents expect
2 My grade average is about the same as my parents expect
3 My grade average is lower than my parents expect
4 Don't know

120. Is your grade average this year higher or lower than what your teachers expect it to be?

1 My grade average is higher than my teachers expect
2 My grade average is about the same as my teachers expect
3 My grade average is lower than my teachers expect
4 Don't know

121. During this school year, how much time a day did you spend studying outside the school?

1 No time or almost none
2 About ½ hour a day
3 About 1 hour a day
4 About 1½ hour a day
5 About 2 hours a day
6 About 3 hours a day
7 4 or more hours a day

122. How much time in the classroom do you spend talking with the teacher about school work?

1 None of the time
2 A small amount of time
3 About half of the time
4 Most of the time
5 All of the time

123. Many students spend some time in the classroom looking out the window. How much time do you spend doing this?

1 None of the time
2 A small amount of time
3 About half of the time
4 Most of the time
5 All of the time

124. Many students spend some time in the classroom making noises or speaking loudly. How much time do you spend doing this?

1 None of the time
2 A small amount of time
3 About half of the time
4 Most of the time
5 All of the time

125. Many students spend some time in the classroom punching or hitting other students. How much time do you spend doing this?

1 None of the time
2 A small amount of time
3 About half of the time
4 Most of the time
5 All of the time

126. Many students sometimes do what the teacher tells them not to do. How much do you do this?

1 None of the time
2 A small amount of time
3 About half of the time
4 Most of the time
5 All of the time

127. Many students stay away from school just because they don't want to come to school. During this school year, how many days have you done this?

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

128. Were you on any school athletic team this year as a player or manager?

1 No
2 Yes, I was on 1 team
3 Yes, I was on 2 or more teams

129. Were you a member of a student governing body such as a homeroom officer, class officer, or student council?

1 Yes
2 No

130. Did you participate in any school clubs or organizations such as debating, dramatics, musical, language, hobby, cheerleading, and such?

1 No
2 Yes, I was active in 1 club
3 Yes, I was active in 2 or 3 clubs
4 Yes, I was active in 4 or more clubs

131. During this school year, about hew many hours a week did you work for pay? Do not include chores done around your own home.

1 NOne
2 About 1 to 2 hours a week
3 About 6 to 10 hours a week
4 About 11 to 15 hours a week
5 About 16 or more hours a week

132. During this school year, how much time a day did you spend talking to your friends?

1 No time or almost none
2 About ½ hour a day
3 About 1 hour a day
4 About 1½ hours a day
5 About 2 hours a day
6 About 3 hours a day
7 4 or more hours a day

133. How much of this time was spent talking to friends of a different race?

1 None of the time
2 A small amount of the time
3 About half of the time
4 Most of the time
5 All of the time

134. During this school year, how much time a day did you spend in your home when at least oneof your parents was there? Do not include the time spent sleeping.

1 No time or almost none
2 About ½ hour a day
3 About 1 hour a day
4 About 2 hours a day
5 About 3 hours a day
6 About 4 hours a day
7 5 or more hours a day

135. What do you want to be most now?

1 A good student
2 A good athlete
3 A person well liked by his fellow students
4 A person with a good job
5 A person who does what his parents and teachers tell him to do
6 A person who is a member of school clubs or organizations

136. How much schooling do you think you will finish? Circle only one.

1 I think I will not finish high school
2 I think I will finish high school only
3 I think I will go to technical, nursing, or business school after high school
4 I think I will go to some college, but less than 4 years
5 I think I will graduate from a 4 year college
6 I think I will go to professional or graduate school
7 I don't know

137. Do you receive an allowance?

1 Yes
2 No

138. Do you ever receive money for working on a job?

1 Yes
2 No

139. Do you regularly receive money from any other source besides an allowance or a job?

1 Yes
2 No

140. About how many times a week do you spend money?

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

21 22 23 24 25 more than 25

141. When you receive change when you buy something, about how often do you count it to see if it is correct?

1 Never or hardly ever
2 Once in a while
3 Almost all of the time
4 Every time

142. About how many times a week do you use a yard stick?

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 more than 15

143. About how many times a week do you use a tape measure?

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 more than 15

144. About how many times a week do you use a ruler?

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 more than 15

145. About how many times a week do you use a measuring cup?

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 more than 15

146. About how many times a week do you use measuring spoons?

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 more than 15

147. About how many times a week do you use a scale to weigh something?

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 more than 15

148. About how many times a week do you multiply or divide for something other than your school work?

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 more than 15

IN ANSWERING THE FOLLOWING QUESTIONS, THINK ABOUT YOUR PARENTS, YOUR BROTHERS AND SISTERS, AND ANYONE ELSE WHO MIGHT LIVE AT HOME WITH YOU.

149. About how many times a week do you see someone who lives with you spend money?

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

21 22 23 24 25 more than 25

150. When the people who live with you receive change, how often do they count it to see if it is correct?

1 All of the time
2 Almost all of the time
3 Once in a while
4 Never or hardly ever
5 Don't know

151. About how many times a week do you see someone who lives with you use a yard stick?

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 more than 15

152. About how many times a week do you see someone who lives with you use a tape measure?

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 more than 15

153. About how many times a week do you see someone who lives with you use a ruler?

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 more than 15

154. About how many times a week do you see someone who lives with you use a measuring cup?

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 more than 15

155. About how many times a week do you see someone who lives with you use measuring spoons?

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 more than 15

156. About how many times a week do you see someone who lives with you use a scale to weigh something?

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 more than 15

157. About how many hours a week do you spend reading books, not including those you read for school?

15 minutes ½ hour 1 hour 1½ hours 2 hours 3 hours

4 hours 5 hours or more

158. About how many hours a week do you spend reading for your school work only?

15 minutes
½ hour
1 hour
1½ hours
2 hours
3 hours
4 hours
5 hours
6 hours
7 hours
8 hours
9 hours
10 hours or more

159. About how many hours a week do you spend reading anything at all (including both what you do for school and books, magazines, comics and anything else you might read)?

15 minutes
½ hour
1 hour
1½ hours
2 hours
3 hours
4 hours
5 hours
6 hours
7 hours
8 hours
9 hours
10 hours
11 hours
12 hours
13 hours
14 hours
15 hours or more

ANSWER THE NEXT TWO QUESTIONS ONLY IF YOUR FATHER OR SOMEONE WHO ACTS AS YOUR FATHER LIVES AT HOME WITH YOU.

160. How many hours a week does your father (or the person acting as your father) spend reading?

15 minutes
½ hour
1 hour
1½ hours
2 hours
3 hours
4 hours
5 hours
6 hours
7 hours
8 hours or more

161. About how many hours a week does your father spend reading books?

15 minutes
½ hour
1 hour
1½ hours
2 hours
3 hours
4 hours
5 hours
6 hours
7 hours
8 hours or more

ANSWER THE NEXT TWO QUESTIONS ONLY IF YOUR MOTHER OR SOMEONE WHO ACTS AS YOUR MOTHER LIVES AT HOME WITH YOU.

162. About how many hours a week does your mother spend reading?

15 minutes
½ hour
1 hour
1½ hours
2 hours
3 hours
4 hours
5 hours
6 hours
7 hours
8 hours or more

163. About how many hours a week does your mother spend reading books?

None
15 minutes
½ hour
1 hour
1½ hours
2 hours
3 hours
4 hours
5 hours
6 hours
7 hours
8 hours or more

SKIP THE NEXT QUESTION IF YOU DO NOT HAVE ANY YOUNGER BROTHERS OR SISTERS.

164. Have you ever seen your parents read to your younger brother(s) and/or sister(s)?

1 Yes
2 No

IF YOU ARE AN ONLY CHILD, SKIP THE NEXT TWO QUESTIONS.
IF YOU HAVE NO OLDER BROTHERS OR SISTERS, SKIP THE NEXT TWO QUESTIONS.

ANSWER THIS QUESTION ONLY IF YOU HAVE ONE OLDER BROTHER OR ONE OLDER SISTER.

165. About how many hours a week does your older brother or your older sister spend reading each week? (May include work for school and anything else.)

None
15 minutes
½ hour
1 hour
1½ hours
2 hours
3 hours
4 hours
5 hours
6 hours
7 hours
8 hours
9 hours
10 hours or more

173. PUT A CHECK BY EACH OF THE FOLLOWING TOPICS WHICH YOU AND YOUR FAMILY TALKED ABOUT YESTERDAY.

_____ World politics and affairs (for example, the war in Viet Nam)
_____ U.S. politics (for example, the Presidential election campaign)
_____ North Carolina politics (for example, the recent state primary)
_____ Local affiars (what is happening in Chapel Hill or Carrboro)
_____ Books and other things people in your family have read
_____ Religion
_____ Entertainment (for example, movies and TV)
_____ Sports
_____ What happened during the day (what happened to your parents at work or at home)
_____ Friends and neighbore
_____ Relatives
_____ Your brothers and sisters
_____ What you are doing in school
_____ Plans for doing things (for example, where to go on the family vacation, going to the movies, or to an athletic or cultural event)
_____ Family problems (disagreements between the various people who live in your home

174. PUT A CHECK BY EACH OF THE FOLLOWING TOPICS WHICH YOU AND YOUR FAMILY HAVE TALKED ABOUT IN THE PAST WEEK.

_____ World politics and affairs (for example, the war in Viet Nam)
_____ U.S. politics (for example, the Presidential election campaign)
_____ North Carolina politics (for example, the recent state primary)
_____ Local affairs (what is happening in Chapel Hill or Carrboro)
_____ Books and other things people in your family have read
_____ Religion
_____ Entertainment (for example, movies and TV)
_____ Sports
_____ What happened during the day (what happened to your parents at work or at home)
_____ Friends and neighbors
_____ Relatives
_____ Your brothers and sisters
_____ What you are doing in school
_____ Plans for doing things (for example, where to go on the family vacation, going to the movies, or to an athletic or cultural event)
_____ Family problems (disagreements between the various people who live in your home)

175. PUT A CHECK BY EACH OF THE FOLLOWING TOPICS WHICH YOU AND YOUR FAMILY HAVE TALKED ABOUT IN THE PAST MONTH.

_____ World politics and affairs (for example, the war in Viet Nam
_____ U.S. politics (for example, the Presidential election campaign)
_____ North Carolina politics (for example, the recent state primary)
_____ Local affairs (what is happening in Chapel Hill or Carrboro)
_____ Books and other things people in your family have read
_____ Religion
_____ Entertainment (for example, movies and TV)
_____ Sports
_____ What happened during the day (what happened to your parents at work or at home)
_____ Friends and neighbors
_____ Relatives
_____ Your brothers and sisters
_____ What you are doing in school
_____ Plans for doing things (for example, where to go on the family vacation, going to the movies, or to an athletic or cultural event
_____ Family problems (disagreements between the various people who live in your home

176. Which of the following things do your parents let you decide what to do?

1 Choose my friends
2 Choose whom and when I date
3 Choose my clothes
4 Decide what time I am to come home
5 Decide what kind of hair-cut or make-up to wear
6 Decide to ride in cars driven by friends or dates
7 Decide how long to talk on the telephone
8 Decide on my going to certain places
9 Decide on kinds of movies I see
10 Decide on kinds of TV shows I watch

## Appendix V

## Academic Behavior Project

## Variables Measured by Pretest Questionnaire

### Section A

I. Social Structural Paradigm

A. Demographic Characteristics
1. sex (1)
2. age (2)
3. age move to Chapel Hill (5)
4. former residence (3)
5. size of former residence (4)
6. ethnicity (6)

B. Family (Household) Composition
1. number of people in home (8)
2. number of children in home (9)
3. composition (7)
4. acting father (19)
5. acting mother (34)

C. SES
1. father's occupation (20-21)
2. father's employment (22)
3. mother's occupation (36)
4. relative subsistence contribution (10)

D. Parental Control
1. decisions on activities (176)

E. Education History
1. number of schools attended (13)
2. nursery school (11)
3. kindergarden (12)
4. integrated schools (14)

### Section B

II. Reinforcement Paradigm

A. Rewards for Academic Behavior (type and number)
1. by father (25)
2. by mother (40)
3. by sibs (58)
4. by teachers (77)
5. by friends (67)

B. Frequency of Rewarding
   1. by father (26)
   2. by mother (41)
   3. by sibs (59)
   4. by teachers (78)
   5. by friends (68)

C. Relative Frequency of Rewarding
   1. father vs. friends' fathers (27)
   2. mother vs. friends' mothers
   3. teachers to S vs. teacher to others (79)

D. Punishment of Non-Academic Behavior (type and number)
   1. by father (28)
   2. by mother (43)
   3. by sibs (60)
   4. by teachers (80)
   5. by friends (69)

E. Frequency of Punishment
   1. by father (29)
   2. by mother (44)
   3. by sibs (61)
   4. by teachers (81)
   5. by friends (70)

F. Relative Frequency of Punishment
   1. father vs. friends' fathers (30)
   2. mother vs. friends' mothers (45)
   3. teachers to S vs. teacher to others (82)

G. Help with Homework (Attention for Homework
   1. father (31)
   2. mother (46)
   3. sibs (62)
   4. ffriends (71)

H. Contingent Friendship for Academic Behavior
   1. by white students (74)
   2. by Negro students (75)
   3. by white teachers (85)
   4. by Negro teachers (86)

Section C

III. Imitation Paradigm

A. Schooling
   1. father (23)
   2. mother (38)
   3. older brother (52)

4. older brother out of school (50-51)
5. older sister in school (53-54)
6. older sister out of school (55-56)
7. friends (65)

B. Rewards for Schooling
    1. father (24)
    2. mother (39)
    3. older brother (52)
    4. older sister (57)
    5. friends (66)

C. Teacher
    1. like to be teacher (88)

D. Relative influence
    1. teacher vs. parent (89)
    2. teacher vs. friends (90)

Section D

IV.

A. Preferential Behavior (consistency -- Outside-Class Behavior
    1. by self (135)
    2. by father (32)
    3. by mother (47)
    4. by sibs (63)
    5. by teachers (83)
    6. by friends (72)

B. Expected Education (consistency)

    1. by self (136)
    2. by father (33)
    3. by mother (48)
    4. by sibs (64)
    5. by teachers (84)
    6. by friends (73)
    7. relative to parents' expectations (119) (Grades)
    8. relative to teachers' expectations (120) "

C. Occupation
    1. expected occupation (15-16)
    2. expected occupation satisfaction (17)
    3. occupational anomia (18)

Section E

V. Student Attitude

A. Instrumentality
1. school work --- good grades (106)
2. good grades --- job and money (107)
3. schooling --- job and money (108)
4. instruction material --- job and money or wife and mother (105)

B. Credibility
1. teachers' expertness on formal subjects (91)
2. teachers' expertness on informal subjects (92)
3. white teacher trustworthiness (97)
4. Negro teacher trustworthiness (98)
5. white teacher fairness (99)
6. white teacher fairness (100)
7. white student trustworthiness (111)
8. Negro student trustworthiness (112)

C. Relative credibility
1. self vs. white teacher (93)
2. self vs. Negro teachers (94)
3. self vs. parents (109)
4. self vs. friends (110)
5. parents vs. teachers (95)
6. friends vs. teachers (96)

D. Volition
1. classroom instruction (101)
2. force of authority (102)

E. Descrepancy
1. learning capability vs. teachers' aspirations (103)

F. Commitment
1. to self (115)
2. to parents (113)
3. to teachers (104)
4. to friends (114)

Section F

VI. Student Behavior

A. Grades
1. grade average (116)
2. relative to past (117)
3. relative to peers (118)

B. Within-Class Behavior (self-reports)

   1. academic (122)
   2. disinterested (123)
   3. distraction (124)
   4. aggression (125)
   5. disobedience (126)
   6. truency (127)

C. Outside-Class Behavior (self-report)
   1. study time (121)
   2. athletic (128)
   3. political (129)
   4. organizations (130)
   5. employment (131)
   6. peer contact (132)
   7. parental contact (134)
   8. inter-racial contact (133)

## Section G

VII.

A. Teacher-Stimulus Preference (87)
   1. sex
   2. age
   3. height
   4. physique (fat-thin)
   5. marital status
   6. race
   7. grading difficulty
   8. amount of homework
   9. teacher status
   10. intellect
   11. smile
   12. smart
   13. dress
   14. temper
   15. discipline
   16. friendliness
   17. physique (size)
   18. make-up
   19. sexy

B. Friends-Stimulus Preference (76)
   1. sex
   2. age
   3. height
   4. physique (fat-thin)

5. looks
6. race
7. glasses
8. hair length
9. dress (dress-slacks)
19. residence
11. grades
12. laughter
13. authoritarian
14. home status
15. fighting
16. teacher popularity
17. physique (size)
18. sexy
19. expense of clothes
20. study time
21. sharer
22. opposite-sex popularity
23. make-up
24. dress (wild)